SOLIC	CITATION, OF	FER AND AWA	RD	1. THIS CONTRACT IS A ORDER UNDER DPAS		0)		R	ATING			PAGE OF P	AGES 31	
2. CONTRACT N	UMBER		3. S	COLICITATION NUMBER			4. TYF	PE OF SOLICIT	ATION	5. DATE ISS	UED	6. REQUISITION/PU		IBER
EP-S7-15	5-08		SC)L-R7-15-000	10		_	ALED B D (F GOTIATED (I	,	07/29/	/2015	PR-R7-15-	00418	
7. ISSUED BY		code R7			8. AE	DDRESS	OFFER	TO (If other that	an Item 7)	'				
	ronmental B enner Blvd	Protection A	gency											
NOTE: In sealed	bid solicitations "offer	" and "offeror" mean "bid	" and "bidde	r".	SOLICIT	FATION								
					SOLICIT									
Sealed offers in				copies fo	or furnishing th	ne suppli	es or ser		nedule will	be received at		pecified in Item 8, or	if hand carried,	in the
depository loc	ated in							until	(Ho	our)	local time		(Date)	
	ATE Submissions, Modi	ifications, and Withdrawals	: See Sectio	n L, Provision No. 52.214-7	_			oject to all term (NO COLLECT		litions containe	C. E-MAIL			
10. FOR INFORMATIO	ON NO	Dandy			AREA COD	Œ	NUMBI		EX	T.		cott@epa.gov		
	DECODIDION				1. TABLE O		1	DECODINE	ION					PAGE(S)
(X) SEC.	- THE SCHEDULE				PAGE(S)	(X)	SEC.	DESCRIPT						FAGE(3)
□ A	SOLICITATION/CO	MITRACT FORM				П	PARTII	- CONTRACT		S .				
□ B	+	RVICES AND PRICES/COS	STS				<u> </u>	- LIST OF DO			ND OTHER	ATTACH.		
		ECS./WORK STATEMENT					J	LIST OF AT						
D	PACKAGING AND	MARKING					PART I	/ - REPRESEN	TATIONS	AND INSTRUC	CTIONS			
E	INSPECTION AND	ACCEPTANCE					К	REPRESE	NTATIONS	, CERTIFICAT	IONS AND			
F	DELIVERIES OR P	ERFORMANCE								S OF OFFER				
G CONTRACT ADMINISTRATION DATA					L			ND NOTICES		ORS				
н	SPECIAL CONTRA	ACT REQUIREMENTS		OFFER (A)	luat ha fullu		M		ON FACTO	RS FOR AWA	ARD			
NOTE: Item 12 de	nes not annly if the sol	licitation includes the prov	visions at 52		fust be fully o		tea by t	опегог)						
12. In compliance	with the above, the un	dersigned agrees, if this off	fer is accepte	ed within	calendar days	s (60 cal		ys unless a diffe						
		specified in the schedule.			T				1		(8/)			
	OR PROMPT PAYMEN I, Clause No. 52.232.8		10 CALENDA	AR DAYS (%)	20 CALEN	DAR DA	AYS (%)		30 CAL	ENDAR DAYS	(%)	CALENL	OAR DAYS (%)	
	OGEMENT OF AMENDI			AMENDMENT NO).		С	ATE		AMENI	DMENT NO.		DA	ATE
	acknowledges receipt o to the SOLICITATION													
and related o	documents numbered a													
15A. NAME AND ADDRESS OF OFFEROR	WASTREN Attn: S' 1571 SH'	ADVANTAGE, TEVE MOORE YVILLE ROAD OH 45661	INC.	FACILITY				6. NAME AND (Type or pri		PERSON AU	HORIZED	TO SIGN OFFER		
AREA CODE	15B. TELEPHONE NU] IS DIFFE	ECK IF REMITTANCE ADD RENT FROM ABOVE - EN DDRESS IN SCHEDULE.				17. SIGNATUR	E				18. OFFER	DATE
				AWARD ((To be comp				_					
	AS TO ITEMS NUMBER			404,349.74		See	sch	gandappro edule						
_		HAN FULL AND OPEN CO						OICES TO ADD ess otherwise s		OWN IN		ITEM		
	ED BY (If other than Ite	· ·	U.S.C. 253	(c) (R7		25. PAY	MENT W	ULL BE MADE			CO	DE RTP FM	C	
See Sche	NTRACTING OFFICE	R (Type or print)						TES OF AMER	RICA				28. AWARD	DATE
Tyrone 1		(.)p= pmmy				ċ	واج	(Signature of	B	ng Officer)	رو	ELECTRONIC SIGNATURE	09/29	3/2015

CONTINUATION SHEET

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 OF

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 31

NAME OF OFFEROR OR CONTRACTOR WASTREN ADVANTAGE, INC.

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	DUNS Number: 786467159				
	Max Expire Date: 09/27/2018				
	Admin Office:				
	Region 7				
	US Environmental Protection Agency				
	11201 Renner Blvd.				
	Lenexa KS 66219				
	Delivery Location Code: R7				
	R7				
	11201 Renner Blvd.				
	Lenexa KS 66219 USA				
	Payment:				
	RTP Finance Center				
	US Environmental Protection Agency				
	RTP-Finance Center (AA216-01)				
	109 TW Alexander Drive				
	www2.epa.gov/financial/contracts				
	Durham NC 27711				
	Period of Performance: 09/28/2015 to 09/27/2018				
0001	Base Period: The Contractor shall furnish all the				6,005,403.70
JUUI	necessary personnel, material, equipment,				6,003,403.70
	services, and facilities (except as otherwise				
	specified), to complete the Remedial Action (RA)				
	declared for Operable Unit 3 (OU3) and Operable				
	Unit 4 (OU4) in accordance with the attached				
	Performance Work Statement (PWS) dated July 2015.				
	refreshmence with beatement (the) dated buty 2010.				
	Period of Performance: 9/28/2015 - 9/27/2016				
	Incrementally Funded Amount: \$5,030,116.58				
	Accounting Info:				
	15-TR2B-07W0R-303DD2-2505-C007-1507W15051-001				
	BFY: 15 Fund: TR2B Budget Org: 07W0R Program				
	(PRC): 303DD2 Budget (BOC): 2505 Job #: 07LTRA03				
	Cost: C007 DCN - Line ID: 1507W15051-001				
	Funding Flag: Complete				
	Funded: \$3,419,118.90				
	Accounting Info:				
	15-TR2B-07W0R-303DD2-2505-C002-1507W15051-002				
	BFY: 15 Fund: TR2B Budget Org: 07W0R Program				
	(PRC): 303DD2 Budget (BOC): 2505 Job #: 07LTRA04				
	Cost: C002 DCN - Line ID: 1507W15051-002				
	Funding Flag: Complete Funded: \$1,610,997.68				
	runded. 71,010,997.00				
0002	Option Period 1: The Contractor shall furnish all				6,100,576.53
	the necessary personnel, material, equipment,				
	services, and facilities (except as otherwise				
	Continued				
NSN 7540-01-		<u> </u>	ш		OPTIONAL FORM 336 (4-86)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

EP-S7-15-08

REFERENCE NO. OF DOCUMENT BEING CONTINUED

3 31

NAME OF OFFEROR OR CONTRACTOR WASTREN ADVANTAGE, INC.

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	specified), to complete the Remedial Action (RA) declared for Operable Unit 3 (OU3) and Operable Unit 4 (OU4) in accordance with the attached Performance Work Statement (PWS) dated July 2015.				
	Period of Performance: 9/28/2016 - 9/27/2017 (Option Line Item) 08/27/2016				
0003	Option Period 2: The Contractor shall furnish all the necessary personnel, material, equipment, services, and facilities (except as otherwise specified), to complete the Remedial Action (RA) declared for Operable Unit 3 (OU3) and Operable Unit 4 (OU4) in accordance with the attached Performance Work Statement (PWS) dated July 2015.				2,298,369.5
	Period of Performance: 9/28/2017 - 9/27/2018 (Option Line Item) 08/27/2017				
	The obligated amount of award: \$5,030,116.58. The total for this award is shown in box 20.				

SECTION B - Supplies or Services/Prices	4
SECTION C - Description/Specifications	
SECTION D - Packaging and Marking	
Section Not Used	
SECTION E - Inspection and Acceptance	9
SECTION F - Deliveries or Performance	9
SECTION G - Contract Administration Data	9
SECTION H - Special Contract Requirements	10
SECTION I - Contract Clauses	19
SECTION J - List of Documents, Exhibits and Other Attachments.	31

SECTION B - Supplies or Services/Prices

B-1 Local Clauses EPA-B-16-101 MINIMUM AND MAXIMUM AMOUNTS

During the period specified in the "Ordering" clause, the Government shall place orders totaling a minimum of \$250,000.00. The amount of all orders shall not exceed the maximum amount allowed for under the contract (see Pricing Schedule).

B-2 Local Clauses EPA-B-32-102 FUNDING

At time of contract award, total funding for this contract is not available for obligation. As funds become available, modifications will be issued to increase the funding amount until the total price of the contract is obligated.

B Pricing Schedule

MADISON COUNTY MINES RESIDENTIAL SITE(S) - OU3 AND CONRAD TAILINGS - OU4 MADISON COUNTY, MISSOURI

BASE YEAR PERIOD

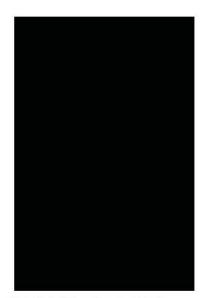
Item	DESCRIPTION	ESTIMATED QUANTITY	UNIT	ESTIMATE D SQUARE FEET	UNIT PRICE	TOTAL			
RESIDENTIAL S	SITE(S) - OU3								
0001	12 Inch Horizon of remediate	d area		Note 14					
0001AA	1,000 Square Feet (SF) or less	15% or 30 properties	SF	21,000					
0001AB	1,001 SF to 5,000 SF	25% or 50 properties	SF	187,500					
0001AC	5,001 SF to 10,000 SF	35% or 70 properties	SF	560,000					
0001AD	10,001 SF to 20,000 SF	20% or 40 properties	SF	680,000					
0001AE	20,001 SF and greater	5% or 10 properties	SF	680,000					
0002	Additional 12 Inch Horizon of	romodiated area							
0002	1,000 Square Feet (SF) or	Terriediated area							
0002AA	less	15% or 30 properties	SF	9,000					
0002AB	1,001 SF to 5,000 SF	25% or 50 properties	SF	75,000					
0002AC	5,001 SF to 10,000 SF	35% or 70 properties	SF	210,000					
0002AD	10,001 SF to 20,000 SF	20% or 40 properties	SF	240,000					
0002AE	20,001 SF and greater	5% or 10 properties	SF	60,000					
			Note 7						
0003	Residential Landscaping	200	EA						
	G&A rate:		LA						
	Our late.								
0004	Repair/Maintain Previously	20	Note 12						
0004	Remediated Properties	20	EA						
	CUPTOTAL RECIPENTIAL CITE(C), OUR								

SUBTOTAL RESIDENTIAL SITE(S) - OU3

\$4,263,649.81

CONRAD TAILINGS / REPOSITORIES- OU4

UNKAU TAIL	INGS / REPUSITORIES- UU4		
0005	Clearing and Grubbing	NTE 12	Note 13 ACRES
0006	Demolition and Disposal		
0006AA	Existing buildings & Structures	1	EA
0006AB	Collapse/fill/plug/cap mine shaft	1	EA
0006AC	Collapse/fill/plug/cap decant structures	2	EA
0006AD	Collapse/fill/plug/cap water well	1	EA
0007	Drainage and Road Dam Construction		Note 13
0007AA	Rip Rap Drainage Swale	NTE 2,100	FT
0007AB	Site Access Road(s)	NTE 4,400	FT
0007AC	Drainage Terrace	NTE 1,000	FT
0007AD	Corrugated Drainage Pipe	NTE 140	FT
0007AE	Earthen Barrow Area Dam	NTE 220	FT



Note: The NTE amounts represent the total estimated quantity for the entire scope of the project. Based on Note 13, work may extend beyond one period however the total Sub-CLIN amount should represent the cost for the entire NTE quantity.

8000	Grading	NTE 28	Note 13 ACRES		
0009	Off-site source materials	NTE 20,000	Note 13 CY		
0010	18 Inch Cap, Dam and Vegetation	NTE 28	Note11 ACRES		
	SUBTOTAL CONRAD	TAILINGS / REPOSIT	ORIES - OU4		
0011	Property Owner Satisfaction S Equal to **Mark** of 'Subtotal Res				
0012	Commitment to the Local Com Equal to ***********************************			l Conrad Tailings / Repositories – OU4'	
0013	Diesel Chemical & Particulate Equal to Market of the 'Subtotal			l Conrad Tailings / Repositories – OU4'	

TOTAL BASE YEAR PERIOD

(Subtotal Residential Site(s)-OU3) + (Subtotal Conrad Tailings/Repositories-OU4) + (0011) + (0012) + (0013)

\$6,005,403.70

OPTION PERIOD 1

Item	DESCRIPTION	ESTIMATED QUANTITY	UNIT	ESTIMATED SQUARE FEET	UNIT PRICE	TOTAL
RESIDENTIAL	SITE(S) - OU3			2002 11 12 1		
1001	12 Inch Horizon of remedia	ated area		Note 14		
1001AA	1,000 Square Feet (SF) or less	15% or 30 properties	SF	22,500		
1001AB	1,001 SF to 5,000 SF	25% or 50 properties	SF	187,500		
1001AC	5,001 SF to 10,000 SF	35% or 70 properties	SF	630,000		
1001AD	10,001 SF to 20,000 SF	20% or 40 properties	SF	720,000		
1001AE	20,001 SF and greater	5% or 10 properties	SF	600,000		

1002	Additional 12 Inch Horizon	of remediated area			
1002AA	1,000 Square Feet (SF) or less	15% or 30 properties	SF	15,000	
1002AB 1002AC	1,001 SF to 5,000 SF 5,001 SF to 10,000 SF	25% or 50 properties 35% or 70 properties	SF SF	125,000 350,000	
1002AD 1002AE	10,001 SF to 20,000 SF 20,001 SF and greater	20% or 40 properties 5% or 10 properties	SF SF	400,000 100,000	
1003	Residential Landscaping	200	Note 7 EA		
	G&A rate:		LA		
1004	Repair/Maintain Previously Remediated Properties	20	Note 12 EA		
	SUBTO	OTAL RESIDENTIAL SIT	E(S) - OU3		
	CONRAD TAILINGS / REP	OSITORIES - OU4			
1005	Clearing and Grubbing	NTE 6	Note 13 ACRES		
1006	Drainage and Road Dam Construction		Note 13		
1006AA	Rip Rap Drainage Swale	NTE 2,100	FT		
1006AB	Site Access Road	NTE 4,400	FT		
1006AC	Drainage Terrace	NTE 1,000	FT		
1006AD	Corrugated Drainage Pipe	NTE 140	FT		
1006AE	Earthen Barrow Area Damn	NTE 220	FT		

Note: The NTE amounts represent the total estimated quantity for the entire scope of the project. Based on Note 13, work may extend beyond one period however the total Sub-CLIN amount should represent the cost for the entire NTE quantity.

1007	Grading	NTE 28	Note 13 ACRES			
1001	Ordanig	IVIC 20	HORLO			
1008	Off-site source materials	NTE 20,000	Note 13 CY			
	18 Inch Cap, Dam and		Note11			
1009	Vegetation	28	ACRES			
	SUBTOTAL CONRAD T	AILINGS / REPOSIT	ORIES - OU4			
1010	Property Owner Satisfaction : Equal to www.of 'Subtotal Re					
1011	Commitment to the Local Con Equal to ***********************************			Conrad Tailings / Rep	ositories – OU4'	
1012	Diesel Chemical & Particulate Equal to ***********************************			Conrad Tailings / Rep	ositories – OU4'	re S

TOTAL OPTION PERIOD 1

(Subtotal Residential Site(s)-OU3) + (Subtotal Conrad Tailings/Repositories-OU4) + (1011) + (1012) + (1013)

\$6,100,576.51

OPTION PERIOD 2

Item DESCRIPTION ESTIMATED UNIT ESTIMATED UNIT TOTAL
RESIDENTIAL SITE(S) - OU3

2001	12 Inch Horizon of remedia	ted area		NOTE 14
2001AA	1,000 Square Feet (SF) or less	15% or 30 properties	SF	22,500
2001AB	1,001 SF to 5,000 SF	25% or 50 properties	SF	125,000
2001AC	5,001 SF to 10,000 SF	35% or 70 properties	SF	350,000
2001AD	10,001 SF to 20,000 SF	20% or 40 properties	SF	360,000
2001AE	20,001 SF and greater	5% or 10 properties	SF	200,000
2002	Additional 12 Inch Horizon	of remediated area		
	1,000 Square Feet (SF)	4504	0.5	0.000
2002AA	or less	15% or 30 properties	SF	3,000
2002AB	1,001 SF to 5,000 SF	25% or 50 properties	SF	25,000
2002AC	5,001 SF to 10,000 SF	35% or 70 properties	SF	70,000
2002AD	10,001 SF to 20,000 SF	20% or 40 properties	SF	80,000
2002AE	20,001 SF and greater	5% or 10 properties	SF	20,000
	\$ 250	18 20		8
0000	D :: 1 - F 11 - 1 :	222	Note 7	
2003	Residential Landscaping	200	EA	
	G&A rate:			
	Repair/Maintain			
2004	Previously Remediated	20	Note 12	
2004	Properties	20	EA	
	SUBT	OTAL RESIDENTIAL SIT	E(S) - OU3	
CONDAD TAIL	INGS / REPOSITORIES - OU	4		
CONKAD TAIL	INGS / REPUSITORIES - UU	4		
			Note 13	
2005	Clearing and Grubbing	NTE 6	ACRES	
2000	Drainage and Road Dam			
2006	Construction		Note 13	
1006AA	Rip Rap Drainage Swale	NTE 2,100	FT	
4000AD	Tap Nup Drainage Swale	1112 2,100		

Note: The NTE amounts represent the total estimated quantity for the entire scope of the project. Based on Note 13, work may extend beyond one period however the total Sub-CLIN amount should represent the cost for the entire NTE quantity.

NTE 4,400

NTE 1,000

NTE 140

NTE 220

2007	Grading	NTE 28	Note 13 ACRES			
2008	Off-site source materials	NTE 20,000	Note 13 CY			
2009	18 Inch Cap, Dam and Vegetation	28	Note11 ACRES			
	SUBTOTAL CONRAC	TAILINGS / REPOS	ITORY - OU4			
2010	Property Owner Satisfaction Equal to					
2011	Commitment to the Local Con Equal to xxxxxxxx fthe 'Subtota			nrad Tailings / Reposit	ories – OU4'	
2012	Diesel Chemical & Particulate Equal to *********** the 'Subtota			nrad Tailings / Reposit	ories – OU4'	

FT

FT

FT

FT

TOTAL OPTION PERIOD 2

1006AB

1006AC

1006AD

1006AE

Site Access Road

Drainage Terrace

Damn

Earthen Barrow Area

Corrugated Drainage Pipe

\$2,298,369.53

GRAND TOTAL WITH INCENTIVE CLINS

\$14,404,349.74

PRICING SCHEDULE NOTES

- NOTE 1: For purposes of pricing and payment, Davis Bacon wages apply to all employees and subcontractors performing work on the site (except for supervisory) INCLUDING ALL TRUCK DRIVERS (unless truck driver is a true owner-operator).
- NOTE 2: Prices proposed include any/all labor, equipment, and materials necessary to perform the service described. Both the pricing and the Project Management Plan shall be based on the performance of the units of measure itemized in this pricing schedule. This is NOT a property-based contract.
- NOTE 3: Prices proposed shall include all premiums for bonding. No separate and distinct reimbursement for bond premiums will be made.
- NOTE 4: Number specified under the ESTIMATED QUANTITY column represents the maximum allowable UNITS for each CLIN.
- NOTE 5: The Government is fairly certain that it will provide sufficient work for the Contractor to achieve within 15% of the estimated quantities specified in the Pricing Schedule.
- NOTE 6: Each CLIN has five Sub CLINs that represent individual sites, all of which are a part of the Madison County Mines project (i.e. 0001AA, 0001AB, 0001AC, 0001AD, 0001AE). Contractor shall identify on each invoice the UNIT of work accomplished at each site by referencing the appropriate sub-CLIN.
- NOTE 7: Landscaping includes only the following materials: fence, fence posts, bushes, flowers, trees, decorative / edging rock or stone, landscape fabric and mulch. Contractor shall submit receipts for all the aforementioned materials to the COR prior to invoicing for those expenditures. Payment for labor of this CLIN shall not exceed the "Laborer" wage rate identified in DOL General Decision Number: MO150001 dated 05/08/2015. Note: the total proposed price for CLINs 0003, 1003 and 2003 shall include all estimated costs plus offeror's applicable G&A %
- NOTE 8: Clearing and grubbing shall include the cost of final debris disposition which may include burning, grinding, of off-site disposal
- NOTE 9: Drainage and Road Construction shall include all material costs
- NOTE 10: 18" Cap includes the cost of earthen Dam construction. The main pile is estimated to use clean material from the lake that would require approximately 65,000 cubic yards, leaving a surplus of fill material from the lake, so the final aerial extent and depth of the lake could be driven by cover soil / fill requirements.
- NOTE 11: The 28 acres for the 18 Inch Cap, Dam, and Vegetation is a Not To Exceed (NTE) amount. Work may expand beyond one period. Only acreage completed during the applicable time period may be billed, up to the NTE amount.
- NOTE 12: The 20 estimated properties is a Not To Exceed (NTE) amount. Work may expand beyond one period. Only the actual number of properties completed during the applicable time period may be billed, up to the NTE amount.
- NOTE 13: These amounts are estimated quantities and are a Not To Exceed (NTE) amount. Work may expand beyond One period. Only the actual quantity based on the respective units of measurement completed during the applicable Time period may be billed, up to the NTE amount.
- NOTE 14: An estimated soil volume within the square footage range for each line item is included for bidding purposes only.
- NOTE 15: The requirements for earning an Incentive are specified in the Quality Assurance Surveillance Plan (QASP). The contractor must meet all requirements in the QASP to earn the incentive.

SECTION C - Description/Specifications

- C-1 EPAAR 1552.211-79 COMPLIANCE WITH EPA POLICIES FOR INFORMATION RESOURCES MANAGEMENT. (JAN 2012)
- C-2 Local Clauses EPA-C-10-101 STATEMENT OF WORK/PERFORMANCE WORK STATEMENT/SPECIFICATIONS

The Contractor shall furnish the necessary personnel, material, equipment, services, and facilities (except as otherwise specified), to perform the Performance Work Statement (PWS) included in Attachment 1. Work will be ordered against the subject PWS through Contracting Officer issuance of contract award, specifying the initial properties for remediation, modifications tasking specific properties, and through modifications exercising options.

C-3 Local Clauses EPA-C-10-103 INCORPORATION OF CONTRACTOR'S QUALITY ASSURANCE (QA) PLAN

The Contractor shall adhere to the procedures set forth in its QA plan dated (TBD after award), which is incorporated by reference.

SECTION E - Inspection and Acceptance

E-1 FAR 52.246-12 INSPECTION OF CONSTRUCTION. (APR 1996)

SECTION F - Deliveries or Performance

F-1 FAR 52.242-14 SUSPENSION OF WORK. (APR 1984)

F-2 FAR 52.242-15 STOP-WORK ORDER. (AUG 1989)

F-3 FAR 52.242-17 GOVERNMENT DELAY OF WORK. (APR 1984)

F-4 EPAAR 1552.211-75 WORKING FILES. (APR 1984)

F-5 Local Clauses EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this contract shall be one base year and two 1-year option periods from the date of award inclusive of all required reports unless Option Periods are exercised under FAR 52.217-9 or 52.217-8.

SECTION G - Contract Administration Data

G-1 Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Contract-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Daniel Kellerman 913-551-7603 kellerman.daniel@epa.gov

Jason Gunter (Alternate) 913-551-7358 gunter.jason@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Tyrone Lewis 913-551-7664 lewis.tyrone@epa.gov

Scott Dandy 913-551-7949 dandy.scott@epa.gov

SECTION H - Special Contract Requirements

H-1 FAR 52.211-18 VARIATION IN ESTIMATED QUANTITY. (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.

(End of clause)

H-2 FAR 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK. (APR 1984)

H-3 EPAAR SUBPART 1509.170 CONTRACTOR PERFORMANCE EVALUATIONS

H-4 EPAAR 1552.208-70 PRINTING. (SEP 2012)

H-5 EPAAR 1552,235-76 TREATMENT OF CONFIDENTIAL BUSINESS INFORMATION. (APR 1996)

- (a) The Project Officer (PO) or his/her designee, after a written determination by the appropriate program office, may disclose confidential business information (CBI) to the Contractor necessary to carry out the work required under this contract. The Contractor agrees to use the CBI only under the following conditions:
 - (1) The Contractor and Contractor's employees shall (i) use the CBI only for the purposes of carrying out the work required by the contract; (ii) not disclose the information to anyone other than properly cleared EPA employees without the prior written approval of the Assistant General Counsel for Information Law or his/her designee; and (iii) return the CBI to the PO or his/her designee, whenever the information is no longer required by the Contractor for performance of the work required by the contract, or upon completion of the contract.
 - (2) The Contractor shall obtain a written agreement to honor the above limitations from each of the Contractor's employees who will have access to the information before the employee is allowed access.
 - (3) The Contractor agrees that these contract conditions concerning the use and disclosure of CBI are included for the benefit of, and shall be enforceable by, both EPA and any affected businesses having a proprietary interest in the information.
 - (4) The Contractor shall not use any CBI supplied by EPA or obtained during performance hereunder to compete with any business to which the CBI relates.
- (b) The Contractor agrees to obtain the written consent of the CO, after a written determination by the appropriate program office, prior to entering into any subcontract that will involve the disclosure of CBI by the Contractor to the subcontractor. The Contractor agrees to include this clause, including this paragraph (b), in all subcontracts awarded pursuant to this contract that require the furnishing of CBI to the subcontractor.

(End of clause)

H-6 EPAAR 1552.235-79 RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION. (APR 1996)

- (a) The Environmental Protection Agency (EPA) may find it necessary to release information submitted by the Contractor either in response to this solicitation or pursuant to the provisions of this contract, to individuals not employed by EPA. Business information that is ordinarily entitled to confidential treatment under existing Agency regulations (40 CFR Part 2) may be included in the information released to these individuals. Accordingly, by submission of this proposal or signature on this contract or other contracts, the Contractor hereby consents to a limited release of its confidential business information (CBI).
- (b) Possible circumstances where the Agency may release the Contractor's CBI include, but are not limited to the following:
 - (1) To other Agency contractors tasked with assisting the Agency in the recovery of Federal funds expended pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Sec. 9607, as amended, (CERCLA or Superfund);
 - (2) To the U.S. Department of Justice (DOJ) and contractors employed by DOJ for use in advising the Agency and representing the Agency in procedures for the recovery of Superfund expenditures;
 - (3) To parties liable, or potentially liable, for costs under CERCLA Sec. 107 (42 U.S.C. Sec. 9607), et al, and their insurers (Potentially Responsible Parties) for purposes of facilitating settlement or litigation of claims against such parties;
 - (4) To other Agency contractors who, for purposes of performing the work required under the respective contracts, require access to information the Agency obtained under the Clean Air Act (42 U.S.C. 7401 et seq.); the Federal Water Pollution Control Act (33 U.S.C.1251 et seq.); the Safe Drinking Water Act (42 U.S.C. 300f et seq.); the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq.); the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.); the Toxic Substances Control Act (15 U.S.C. 2601 et seq.); or the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et seq.);
 - (5) To other Agency contractors tasked with assisting the Agency in handling and processing information and documents in the administration of Agency contracts, such as providing both preaward and post award audit support and specialized technical support to the Agency's technical evaluation panels;
 - (6) To employees of grantees working at EPA under the Senior Environmental Employment (SEE) Program;
 - (7) To Speaker of the House, President of the Senate, or Chairman of a Committee or Subcommittee;
 - (8) To entities such as the General Accounting Office, boards of contract appeals, and the Courts in the resolution of solicitation or contract protests and disputes;
 - (9) To Agency contractor employees engaged in information systems analysis, development, operation, and maintenance, including performing data processing and management functions for the Agency; and
 - (10) Pursuant to a court order or court-supervised agreement.
- (c) The Agency recognizes an obligation to protect the contractor from competitive harm that may result from the release of such information to a competitor. (See also the clauses in this document entitled "Screening Business Information for Claims of Confidentiality" and "Treatment of Confidential Business Information.") Except where otherwise provided by law, the Agency will permit the release of CBI under subparagraphs (1), (3), (4), (5), (6), or (9) only pursuant to a confidentiality agreement.

- (d) With respect to contractors, 1552.235-71 will be used as the confidentiality agreement. With respect to Potentially Responsible Parties, such confidentiality agreements may permit further disclosure to other entities where necessary to further settlement or litigation of claims under CERCLA. Such entities include, but are not limited to accounting firms and technical experts able to analyze the information, provided that they also agree to be bound by an appropriate confidentiality agreement.
- (e) This clause does not authorize the Agency to release the Contractor's CBI to the public pursuant to a request filed under the Freedom of Information Act.
- (f) The Contractor agrees to include this clause, including this paragraph (f), in all subcontracts at all levels awarded pursuant to this contract that require the furnishing of confidential business information by the subcontractor.

(End of clause)

H-7 EPAAR 1552.237-72 KEY PERSONNEL. (APR 1984)

(a) The Contractor shall assign to this contract the following key personnel:



- (b) During the first ninety (90) days of performance, the Contractor shall make no substitutions of key personnel unless the substitution is necessitated by illness, death, or termination of employment. The Contractor shall notify the Contracting Officer within 15 calendar days after the occurrence of any of these events and provide the information required by paragraph (c) of this clause. After the initial 90-day period, the Contractor shall submit the information required by paragraph (c) to the Contracting Officer at least 15 days prior to making any permanent substitutions.
- (c) The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. Proposed substitutes should have comparable qualifications to those of the persons being replaced. The Contracting Officer will notify the Contractor within 15 calendar days after receipt of all required information of the decision on substitutions. This clause will be modified to reflect any approved changes of key personnel.

(End of clause)

H-8 EPAAR 1552.237-74 PUBLICITY. (APR 1984)

H-9 EPAAR 1552.237-75 PAPERWORK REDUCTION ACT. (APR 1984)

H-10 EPAAR 1552.237-76 GOVERNMENT-CONTRACTOR RELATIONS. (JUN 1999)

(a) The Government and the Contractor understand and agree that the services to be delivered under this contract by the contractor to the Government are non-personal services and the parties recognize and agree that no employer-employee relationship exists or will exist under the contract between the Government and the Contractor's personnel. It is, therefore, in the best interest of the Government to afford both parties a full understanding of their respective obligations.

- (b) Contractor personnel under this contract shall not:
 - (1) Be placed in a position where they are under the supervision, direction, or evaluation of a Government employee.
 - (2) Be placed in a position of command, supervision, administration or control over Government personnel, or over personnel of other Contractors under other EPA contracts, or become a part of the Government organization.
 - (3) Be used in administration or supervision of Government procurement activities.
- (c) Employee relationship. (1) The services to be performed under this contract do not require the Contractor or his/her personnel to exercise personal judgment and discretion on behalf of the Government. Rather the Contractor's personnel will act and exercise personal judgment and discretion on behalf of the Contractor.
 - (2) Rules, regulations, directives, and requirements that are issued by the U.S. Environmental Protection Agency under its responsibility for good order, administration, and security are applicable to all personnel who enter the Government installation or who travel on Government transportation. This is not to be construed or interpreted to establish any degree of Government control that is inconsistent with a non-personal services contract.
- (d) Inapplicability of employee benefits. This contract does not create an employer-employee relationship. Accordingly, entitlements and benefits applicable to such relationships do not apply.
 - (1) Payments by the Government under this contract are not subject to Federal income tax withholdings.
 - (2) Payments by the Government under this contract are not subject to the Federal Insurance Contributions Act.
 - (3) The Contractor is not entitled to unemployment compensation benefits under the Social Security Act, as amended, by virtue of performance of this contract.
 - (4) The Contractor is not entitled to workman's compensation benefits by virtue of this contract.
 - (5) The entire consideration and benefits to the Contractor for performance of this contract is contained in the provisions for payment under this contract.
- (e) Notice. It is the Contractor's, as well as, the Government's responsibility to monitor contract activities and notify the Contracting Officer if the Contractor believes that the intent of this clause has been or may be violated.
 - (1) The Contractor should notify the Contracting Officer in writing promptly, within TBD (to be negotiated and inserted into the basic contract at contract award) calendar days from the date of any incident that the Contractor considers to constitute a violation of this clause. The notice should include the date, nature and circumstance of the conduct, the name, function and activity of each Government employee or Contractor official or employee involved or knowledgeable about such conduct, identify any documents or substance of any oral communication involved in the conduct, and the estimate in time by which the Government must respond to this notice to minimize cost, delay or disruption of performance.
 - (2) The Contracting Officer will promptly, within TBD (to be negotiated and inserted into the basic contract at contract award) calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer will either:

- (i) Confirm that the conduct is in violation and when necessary direct the mode of further performance,
- (ii) Countermand any communication regarded as a violation,
- (iii) Deny that the conduct constitutes a violation and when necessary direct the mode of further performance; or
- (iv) In the event the notice is inadequate to make a decision, advise the Contractor what additional information is required, and establish the date by which it should be furnished by the Contractor and the date thereafter by which the Government will respond.

(End of clause)

H-11 Local Clauses 1552,242-71 CONTRACTOR PERFORMANCE INFORMATION MAY 2010 (DEVIATION)

As prescribed in section 1542.1504, insert the following clause in all applicable solicitations and contracts.

Contractor Performance Information (May 2010 Deviation)

(a) In accordance with Federal Acquisition Regulation (FAR) Subpart 42.15 and EPAAR Deviation 1542.15, past performance evaluations shall be prepared and submitted electronically to the Past Performance Information Retrieval System (PPIRS). The process for submitting evaluation reports to PPIRS shall be through use of the Contractor Performance Assessment Reporting System (CPARS) which has connectivity with PPIRS.

Using CPARS, EPA shall evaluate contractor performance using the following evaluation factors as applicable: Technical (Quality of Product), Product Performance, Systems Engineering, Software Engineering, Logistic Support/Sustainment, Product Assurance, Other Technical Performance, Schedule, Cost Control (Not Applicable for Firm-Fixed Price or Firm-Fixed Price with Economic Price Adjustment), Management, Management Responsiveness, Subcontract Management, Program Management and Other Management, Other Areas, and Utilization of Small Business.

Each evaluation factor shall be rated in accordance with a five scale rating system: Red/Unsatisfactory, Yellow/Marginal, Green/Satisfactory, Purple/Very Good, and Dark Blue/Exceptional, N/A = Not Applicable. Plus or minus signs may be used to indicate an improving (+) or worsening (-) trend insufficient to change assessment status.

(b) The contractor shall designate representatives to whom the evaluations will be sent automatically and electronically. The name, title, e-mail address and phone number of the designated contractor representative shall be provided to the contracting officer who will, in turn, provide that information to their CPARS Focal Point administrator for authorization access. Any changes in designated contractor personnel shall be the sole responsibility of the contractor to inform the contracting officer and the CPARS Focal Point.

The contractor has thirty (30) calendar days from the date of the contractor's receipt of the Report to review and provide a response to the contracting officer regarding the contents of the Report. The response shall be sent through CPARS.

The contractor's response to the Report may include written comments, rebuttals (disagreements), or additional information. If the contractor does not respond to the Report within the designated thirty (30) calendar days, the specified ratings in the Report are deemed appropriate for the evaluation period. In this instance, the contracting officer shall complete the Agency review and finalize the evaluation in CPARS after expiration of the specified 30 calendar days.

If the contractor submits comments, rebuttals (disagreements), or additional information to the contracting officer which contests the ratings, the contracting officer, in consultation with the contract level contracting officer's representative and/or applicable official, shall initially try to resolve the disagreement with the contractor.

If the disagreement is not resolved between the contractor and the contracting officer, the matter will be referred, as promptly as possible, to the Reviewing Official (an official at least one level above the contracting officer or contract specialist) for resolution.

The Agency Reviewing Official shall record a determination in CPARS. The ultimate conclusion on the performance evaluation is a decision of the EPA.

The contracting officer shall complete the Agency review and finalize the evaluation in CPARS after the contracting officer receives the Agency Reviewing Official's determination.

An interim or final report is considered completed after the contracting officer finalizes the evaluation in CPARS.

H-12 Local Clauses EPA-H-07-101 PUBLIC COMMUNICATION

The Contractor shall not represent itself as EPA to outside parties. To maintain public trust, and to not mislead the public, the Contractor shall, when communicating with outside parties, identify itself as an Agency Contractor.

When performing work for EPA, contractor personnel must be easily identifiable to the public as an EPA contractor through use of badges, corporate logos, or other distinguishable credentials.

H-13 Local Clauses EPA-H-07-102 IDENTIFICATION OF ON-SITE CONTRACTOR EMPLOYEES

All Contractor, subcontractor, and consultant personnel shall wear prominently displayed identification badges at all times when performing work on EPA property or attending meetings in the performance of this contract. The badge shall contain the individual's name, the company name and logo. When participating in such meetings (e.g., as a speaker, panel member), those individuals in Contractor employ must supplement physical identification (e.g., badges, place markers) with verbal announcements so that it is clear to the assembled group that they are employees of the Contractor, not Agency staff members. In addition, when working on EPA property, all contractor, subcontractor, and consultant personnel shall have signs visible on their desks or at their work sites that clearly state that they are not EPA employees.

H-14 Local Clauses EPA-H-07-103 NOTICE REGARDING PROHIBITED CONTRACTOR ACTIVITIES ON ENVIRONMENTAL PROTECTION AGENCY (EPA CONTRACTS)

The Contractor shall not perform any of the following activities on behalf of EPA in connection with this contract:

- 1. The actual preparation of Congressional testimony.
- 2. The interviewing or hiring of individuals for employment at EPA.
- 3. Developing and/or writing of Position Descriptions and Performance Standards.
- 4. The actual determination of Agency policy.
- 5. Participating as a voting member on a Performance Evaluation Board; participating in and/or attending Award Fee meetings.
- 6. Preparing Award Fee Letters, even under typing services contracts.

- 7. The actual preparation of Award Fee Plans.
- 8. The preparation of documents on EPA Letterhead other than routine administrative correspondence.
- 9. Reviewing vouchers and invoices for the purposes of determining whether costs, hours, and work performed are reasonable.
- 10. The preparation of Statements of Work, Work Assignments, Technical Direction Documents, Delivery Orders, or any other work issuance document under a contract that the contractor is performing or may perform. Such a work issuance document, prepared by an EPA prime contractor under an EPA prime contract for its subcontractor, is exempt from this prohibition.
- 11. The actual preparation of responses to audit reports from the Inspector General, General Accounting Office, or other auditing entities.
- 12. Preparing responses to Congressional correspondence.
- 13. The actual preparation of responses to Freedom of Information Act requests, other than routine, non judgmental correspondence.
- 14. Any contract which authorizes a contractor to represent itself as EPA to outside parties.
- 15. Conducting administrative hearings.
- 16. Reviewing findings concerning the eligibility of EPA employees for security clearances.
- 17. The actual preparation of an office's official budget request.

H-15 Local Clauses EPA-H-09-101 CONTRACTOR DISCLOSURE REQUIREMENTS FOR CONFLICT OF INTEREST

In submitting notices of potential corporate, affiliate or personal conflicts of interest, the Contractor shall answer each of the following questions as thoroughly as possible. If necessary, the Contracting Officer may request additional information. If a particular question does not apply to the particular situation, the Contractor shall reply by writing "Not Applicable" rather than by making no response.

The Contractor shall forward a copy of the company's answers to both the Contracting Officer and the Project Officer. Subcontractors must submit their answers to the EPA through the Prime contractor. This information, however, may be marked confidential and sent in a sealed and numbered envelope which is to be opened only by the Contracting Officer. All EPA decisions regarding the notifications will be sent to the prime contractor in writing. The prime contractor shall be responsible for forwarding the Contracting Officer's decision to the subcontractor.

- 1. During the past three (3) calendar years, has the company or any employees that will be working at this site performed work at this site/facility? If the answer is 'yes', describe, in detail, the nature of work the company or employee(s) performed and provide the names of the employee(s); the dates the work took place and identify the client(s) for whom the work was performed. Note: For reporting purposes, all clients including Commercial, Federal, State or local entities other than the EPA should be included in the check for potential conflict of interest.
- 2. For any work identified in question 1 that was performed by the company, provide the approximate dollar value of work performed for each client as well as the company's annual sales by fiscal year.
- 3. With whom has this potential conflict of interest been discussed (include EPA personnel, legal advisors, etc.)?

- 4. Provide, if relevant, information regarding how the company's organizational structure and/or management system affects its knowledge of possible conflicts or interest relating to other divisions or sections of the organization and how that structure or system could prevent or mitigate/neutralize potential conflicts of interest.
- 5. Provide an update of any significant change in control or ownership of the company since the submission of information for responsibility determination.
- 6. Provide any additional information which may be pertinent to this request.

When submitting responses to these questions, the Contractor shall provide the name and telephone number of someone in the company who is knowledgeable with regard to this notice of potential conflict of interest.

H-16 Local Clauses EPA-H-09-111 BACKGROUND CHECK LEVELS AND DRUG SCREENING REQUIREMENTS FOR WORK AT NON-FEDERAL FACILITIES

- (a) The Contractor shall provide qualified personnel that meet the background check and drug screening requirements established below. The EPA has established 2 levels of background check criteria. Level 1 contains background check criteria that applies to all Contractor employees working at a response site. Level 2 contains background check criteria and drug screening requirements that apply to all contract employees working at sites that are designated by EPA as "Sensitive Sites." Examples of such sites include those that involve law enforcement activities, apparent or suspected terrorist activities, any indoor cleanups (including private residences), drug lab cleanups, and response actions at geographically sensitive locations such as military installations and government buildings.
- (b) If this is an Indefinite Delivery/Indefinite Quantity contract that utilizes task orders, the Contracting Officer will notify the Contractor whenever EPA designates a response site as a sensitive site. If this is a site specific contract that does not use task orders, the designation will be provided to the Contractor in the task order or verbally, as the situation warrants.
- (c) If a background check for an employee has been performed within one (1) year prior to the requirement for the background check, the Contractor does not need to conduct another background check.
- (d) Levels 1 and 2 Background Check Criteria:
 - (1) LEVEL 1 Standard Site EPA Background Check Criteria:
 - (i) The Contractor employee may be a non-U.S. citizen with a valid visa, and must have no convictions for crimes involving issues of National Security. A "national security crime" is defined as any criminal activity involving espionage or foreign aggression against the United States, intelligence or counter intelligence activities, including development of defense plans or policies, concerned with undermining or overthrowing the government of the United States and unlawful handling or disclosure of classified information.
 - (ii) The Contractor employee shall have no weapons offense in the last five (5) years, no felony conviction in the last three (3) years, shall not be a fugitive from justice, and shall not be listed in the Excluded Parties Listing System (EPLS). EPLS is a web-based database that identifies parties excluded throughout the U.S. Government from receiving federal contracts or subcontracts. EPLS is available at the System for Award Management (SAM) website at http://sam.gov.
 - (2) LEVEL 2 Sensitive Site EPA Background Check Criteria:
 - (i) The Contractor employee must be a U.S. citizen, and have no convictions for crimes involving issues of National Security. The employee shall have no weapons offense in the last ten (10) years, no felony conviction in the last seven (7) years, and no misdemeanor conviction in the last five (5) years.

The employee shall not have convictions for three (3) separate offenses in the last ten (10) years (excluding traffic offenses), shall not be a fugitive from justice, and shall not be listed in EPLS.

- (ii) Drug Screening at Sensitive Sites: Contractor employees working at designated "Sensitive Sites" must pass, within the previous 90 calendar days, a drug test for the presence of marijuana, cocaine, opiates, amphetamines, and phencyclidine (PCP) in conformance with the *Mandatory Guidelines for Federal Workplace Drug Testing Programs* published by the Department of Health and Human Services in the *Federal Register* on April 11, 1988 (53 FR 11979, and revised on June 9, 1994 (59 FR 29908), on November 13, 1998 (63 FR 63483), and on April 13, 2004 (69 FR 196440); and *Procedures for Transportation Drug Testing Programs*, 49 CFR Part 40. References to "DOT" shall read as "EPA" and the split sample method of collection shall be used.
- (e) The requirements for Level 1 or 2 may be waived by the Contracting Officer on a case-by-case basis, at a specific location, or for a specific individual. If the results of an employee's background check or drug screening do not meet the criteria in either Level 1 or 2, as required, the Contractor may apply for a waiver. To initiate the waiver process, the Contractor shall submit the background report or drug test on the employee, and an explanation of the need for approval by the Agency. The Contractor shall submit its request for waiver to the cognizant Contracting Officer via email, with a cc: to OAM-AcquisitionPolicy@epa.gov. The director for Superfund/RCRA Regional Procurement Operations Division must approve the waiver before the employee performs contract services for EPA. The Contracting Officer will notify the Contractor of the Agency decision within five (5) days of receipt of the Contractor's request for a waiver.

(End of clause)

NOTE: While subject to change, at this time EPA does not anticipate that there will be a designation of sensitive sites related to this contract.

H-17 Local Clauses EPA-H-15-101 RELEASE OF COST OR PRICING PROPOSALS OUTSIDE THE GOVERNMENT FOR AUDIT

Cost or pricing proposals submitted in response to this solicitation may be released outside the Government for audit purposes regardless of whether information contained in such proposals has been claimed or determined to be business confidential. If an outside audit is obtained, the non-Government auditor shall use the information only for audit purposes; shall not disclose any information in the proposals to anyone other than authorized EPA employees without the prior written approval of the Assistant General Counsel responsible for information law matters; and shall return all copies of proposals, as well as any abstracts, to the Government upon completion of the audit. The non-Government auditor shall obtain a written agreement from each of its employees with access to the proposals to honor these limitations prior to allowing the employee access.

H-18 Local Clauses EPA-H-23-101 ENVIRONMENTALLY PREFERABLE PRACTICES

The contractor shall, to the greatest extent practicable, utilize environmentally preferable practices in its course of business. "Environmentally preferable" is defined as products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service. Consideration of environmentally preferable practices must be consistent with price, performance, availability, and safety conditions.

H-19 Local Clauses EPA-H-27-102 CONFIDENTIALITY OF INFORMATION

Any data that is generated or obtained during contract performance shall be considered confidential, and shall not be disclosed to anyone other than Environmental Protection Agency employees without the prior written approval of the Contracting Officer. Nor shall any such data be used for any other purpose except in connection with this

contract. Any data generated or obtained during contract performance shall be delivered to the Government at the request of the Contracting Officer.

H-20 Local Clauses EPA-H-28-102 MINIMUM INSURANCE REQUIREMENTS

As described in FAR 52.228-7, the following are the minimum amounts of insurance required under the contract:

Workers compensation and employer's liability-\$1,000,000

Comprehensive general liability- \$1,000,000

Comprehensive automobile liability- \$1,000,000

H-21 Local Clauses EPA-H-42-102 UTILIZATION OF FEDCONNECT FOR CONTRACT ADMINISTRATION

EPA will utilize the FedConnect® web portal in administering this contract. The contractor must be registered in FedConnect® and have access to the FedConnect website located at https://www.fedconnect.net/Fedconnect/. For assistance in registering or for other FedConnect® technical questions please call the FedConnect® Help Desk at (800) 899-6665 or email at support@fedconnect.net.

End of clause

H-22 Local Clauses EPA-H-42-104 POSTAWARD ORIENTATION CONFERENCE

A post award orientation conference will be held within 2 weeks after contract award to (a) achieve a clear and mutual understanding of all contract requirements and (b) to identify and resolve potential problems. Attendance will be required by representatives of the contractor and the Environmental Protection Agency (EPA). At a minimum, the Contractor's Key Personnel shall participate as well as the Contracting Officer and Contracting Officer's Representative. The conference may be held in-person at the EPA, via telephone or via video conference. The cost of the conference is considered a component of the final contract price and may not be billed separately, unless billed in accordance with the Contractor's approved accounting practices.

H-23 Local Clauses EPA-H-44-101 TEAM SUBCONTRACTOR AGREEMENTS

The contractor shall provide, within five (5) calendar days of award notice, one copy of each proposed team subcontract agreement, when applicable, to the Contracting Officer. A copy of the executed team subcontract and any subsequent modifications shall also be provided to the Contracting Officer within 10 days of execution.

SECTION I - Contract Clauses

I-1 FAR 52.202-1 DEFINITIONS. (NOV 2013)

I-2 FAR 52.203-3 GRATUITIES. (APR 1984)

I-3 FAR 52.203-5 COVENANT AGAINST CONTINGENT FEES. (MAY 2014)

I-4 FAR 52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT. (SEP 2006)

I-5 FAR 52.203-7 ANTI-KICKBACK PROCEDURES. (MAY 2014)

I-6 FAR 52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY. (MAY 2014)

I-7 FAR 52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY. (MAY 2014)

I-8 FAR 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS. (OCT 2010)

I-9 FAR 52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT. (APR 2010)

I-10 FAR 52.203-14 DISPLAY OF HOTLINE POSTER(S). (DEC 2007)

Mail: U.S. Environmental Protection Agency Office of Inspector General Hotline (2443) 1200 Pennsylvania Avenue, NW Washington, DC 20460. Call: Toll Free 1-888-546-8740 (Nationwide), Fax: 202-566-2549; or http://www.epa.gov/oig/hotline.html

I-11 FAR 52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS. (APR 2014)

I-12 FAR 52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER. (MAY 2011)

I-13 FAR 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS. (JUL 2013)

I-14 FAR 52.204-12 DATA UNIVERSAL NUMBERING SYSTEM NUMBER MAINTENANCE (DEC 2012)

I-15 FAR 52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE. (JUL 2013)

I-16 FAR 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT. (AUG 2013)

I-17 FAR 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS. (JUL 2013)

I-18 FAR 52.210-1 MARKET RESEARCH. (APR 2011)

I-19 FAR 52.211-11 LIQUIDATED DAMAGES - SUPPLIES, SERVICES, OR RESEARCH AND DEVELOPMENT. (SEP 2000)

- (a) If the Contractor fails to deliver the supplies or perform the services within the time specified in this contract, the Contractor shall, in place of actual damages, pay to the Government liquidated damages of \$1,220.00 per calendar day of delay.
- (b) If the Government terminates this contract in whole or in part under the Default Fixed-Price Supply and Service clause, the Contractor is liable for liquidated damages accruing until the Government reasonably obtains delivery or performance of similar supplies or services. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(c) The Contractor will not be charged with liquidated damages when the delay in delivery or performance is beyond the control and without the fault or negligence of the Contractor as defined in the Default - Fixed-Price Supply and Service clause in this contract.

(End of clause)

I-20 FAR 52.215-2 AUDIT AND RECORDS - NEGOTIATION. (OCT 2010)

I-21 FAR 52.215-8 ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT. (OCT 1997)

I-22 FAR 52.215-19 NOTIFICATION OF OWNERSHIP CHANGES. (OCT 1997)

- (a) The Contractor shall make the following notifications in writing:
 - (1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.
 - (2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.
- (b) The Contractor shall -
 - (1) Maintain current, accurate, and complete inventory records of assets and their costs;
 - (2) Provide the ACO or designated representative ready access to the records upon request;
 - (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and
 - (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.
- (c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

I-23 FAR 52.216-1 TYPE OF CONTRACT. (APR 1984)

The Government contemplates award of an indefinite quantity, fixed unit price contract resulting from this solicitation.

(End of provision)

I-24 FAR 52.217-8 OPTION TO EXTEND SERVICES. (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance

hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 30 days.

(End of clause)

I-25 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT. (MAR 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor within 60 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed three (3) years and six (6) months.

(End of clause)

I-26 FAR 52,219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE. (NOV 2011)

I-27 FAR 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS. (OCT 2014)

I-28 FAR 52.219-14 LIMITATIONS ON SUBCONTRACTING. (NOV 2011)

I-29 FAR 52.222-3 CONVICT LABOR. (JUN 2003)

I-30 FAR 52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS - OVERTIME COMPENSATION. (MAY 2014)

I-31 FAR 52.222-6 CONSTRUCTION WAGE RATE REQUIREMENTS. (MAY 2014)

I-32 FAR 52.222-7 WITHHOLDING OF FUNDS. (MAY 2014)

I-33 FAR 52.222-8 PAYROLLS AND BASIC RECORDS. (MAY 2014)

I-34 FAR 52.222-13 COMPLIANCE WITH CONSTRUCTION WAGE RATE REQUIREMENTS AND RELATED REGULATIONS. (MAY 2014)

I-35 FAR 52.222-14 DISPUTES CONCERNING LABOR STANDARDS. (FEB 1988)

I-36 FAR 52.222-15 CERTIFICATION OF ELIGIBILITY. (MAY 2014)

I-37 FAR 52.222-21 PROHIBITION OF SEGREGATED FACILITIES. (FEB 1999)

I-38 FAR 52.222-26 EQUAL OPPORTUNITY. (MAR 2007)

I-39 FAR 52.222-30 CONSTRUCTION WAGE RATE REQUIREMENTS-PRICE ADJUSTMENT (NONE OR SEPARATELY SPECIFIED METHOD). (MAY 2014)

I-40 FAR 52.222-35 EOUAL OPPORTUNITY FOR VETERANS. (JUL 2014)

(a) Definitions. As used in this clause-

"Active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," protected veteran," "qualified disabled veteran," and "recently separated veteran" have the meanings given at FAR 22.1301.

- (b) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.
- (c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts of \$100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

I-41 FAR 52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES. (JUL 2014)

- (a) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.
- (b) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$15,000 unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

I-42 FAR 52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT. (DEC 2010)

I-43 FAR 52,222-50 COMBATING TRAFFICKING IN PERSONS. (MAR 2015)

I-44 FAR 52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION. (AUG 2013)

I-45 FAR 52.222-55 MINIMUM WAGES UNDER EXECUTIVE ORDER 13658. (DEC 2014)

I-46 FAR 52.223-2 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS. (SEP 2013)

I-47 FAR 52.223-6 DRUG-FREE WORKPLACE. (MAY 2001)

I-48 FAR 52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING. (AUG 2011)

I-49 FAR 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES. (JUN 2008)

I-50 FAR 52.227-1 AUTHORIZATION AND CONSENT. (DEC 2007)

I-51 FAR 52.228-2 ADDITIONAL BOND SECURITY. (OCT 1997)

I-52 FAR 52.228-11 PLEDGES OF ASSETS. (JAN 2012)

I-53 FAR 52.228-14 IRREVOCABLE LETTER OF CREDIT. (NOV 2014)

I-54 FAR 52.228-16 PERFORMANCE AND PAYMENT BONDS - OTHER THAN CONSTRUCTION. (NOV 2006)

(a) Definitions. As used in this clause-

"Original contract price" means the award price of the contract or, for requirements contracts, the price payable for the estimated quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

- (b) The Contractor shall furnish a performance bond (Standard Form 1418) for the protection of the Government in an amount equal to twenty (20) percent of the original contract price and a payment bond (Standard Form 1416) in an amount equal to twenty (20) percent of the original contract price.
- (c) The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within ten (10) calendar days, but in any event, before starting work.
- (d) The Government may require additional performance and payment bond protection if the contract price is increased. The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bonds or to obtain additional bonds.
- (e) The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register, or may be obtained from the U.S. Department of the Treasury, Financial Management Service, Surety Bond Branch, 3700 East West Highway, Room 6F01, Hyattsville, MD 20782. Or via the internet at http://www.fms.treas.gov/c570/.

(End of clause)

I-55 FAR 52.232-1 PAYMENTS. (APR 1984)

I-56 FAR 52.232-17 INTEREST. (MAY 2014)

I-57 FAR 52.232-23 ASSIGNMENT OF CLAIMS. (MAY 2014)

I-58 FAR 52.232-25 PROMPT PAYMENT. (JUL 2013)

I-59 FAR 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER - SYSTEM FOR AWARD MANAGEMENT. (JUL 2013)

I-60 FAR 52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS. (JUN 2013)

I-61 FAR 52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS. (DEC 2013)

I-62 FAR 52.233-1 DISPUTES. (MAY 2014) - ALTERNATE I (DEC 1991)

I-63 FAR 52.233-3 PROTEST AFTER AWARD. (AUG 1996)

I-64 FAR 52,233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM. (OCT 2004)

I-65 FAR 52.236-2 DIFFERING SITE CONDITIONS. (APR 1984)

I-66 FAR 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR. (APR 1984)

I-67 FAR 52.236-7 PERMITS AND RESPONSIBILITIES. (NOV 1991)

I-68 FAR 52.236-8 OTHER CONTRACTS. (APR 1984)

I-69 FAR 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. (APR 1984)

I-70 FAR 52.236-10 OPERATIONS AND STORAGE AREAS. (APR 1984)

I-71 FAR 52.236-26 PRECONSTRUCTION CONFERENCE. (FEB 1995)

I-72 FAR 52.242-13 BANKRUPTCY. (JUL 1995)

I-73 FAR 52.243-4 CHANGES. (JUN 2007)

I-74 FAR 52.243-7 NOTIFICATION OF CHANGES. (APR 1984)

(a) *Definitions*. "Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer.

"Specifically Authorized Representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this paragraph and shall be issued to the designated representative before the SAR exercises such authority.

- (b) *Notice*. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within 5 calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state-
 - (1) The date, nature, and circumstances of the conduct regarded as a change;
 - (2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

- (3) The identification of any documents and the substance of any oral communication involved in such conduct: (4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose; (5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including-(i) What contract line items have been or may be affected by the alleged change; (ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change; (iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change; (iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and (6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance. (c) Continued performance. Following submission of the notice required by paragraph (b) of this clause, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in paragraph (b) of this clause, notice shall be given in the manner provided. All directions,
- (d) *Government response*. The Contracting Officer shall promptly, within 30 calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either-

communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly

- (1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;
- (2) Countermand any communication regarded as a change;

countermand any action which exceeds the authority of the SAR.

- (3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or
- (4) In the event the Contractor's notice information is inadequate to make a decision under paragraphs (d)(1), (2), or (3) of this clause, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.
- (e) Equitable adjustments. (1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made-
 - (i) In the contract price or delivery schedule or both; and
 - (ii) In such other provisions of the contract as may be affected.
 - (2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in paragraphs (b) and (c) of this clause.

Note: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of clause)

I-75 FAR 52.246-21 WARRANTY OF CONSTRUCTION. (MAR 1994)

I-76 FAR 52.247-5 FAMILIARIZATION WITH CONDITIONS. (APR 1984)

I-77 FAR 52,249-8 DEFAULT (FIXED-PRICE SUPPLY AND SERVICE). (APR 1984)

I-78 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE. (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): https://acquisition.gov

(End of clause)

I-79 EPAAR 1552.209-71 ORGANIZATIONAL CONFLICTS OF INTEREST. (MAY 1994)

I-80 EPAAR 1552,209-73 NOTIFICATION OF CONFLICTS OF INTEREST REGARDING PERSONNEL. (MAY 1994)

I-81 EPAAR 1552.209-74 LIMITATION OF FUTURE CONTRACTING. (APR 2004)

I-82 EPAAR 1552.209-75 ANNUAL CERTIFICATION. (MAY 1994)

I-83 EPAAR 1552,227-76 PROJECT EMPLOYEE CONFIDENTIALITY AGREEMENT. (MAY 1994)

I-84 Local Clause EPA-I-32-101 PAYMENTS UNDER FIXED-PRICE AND FIXED UNIT PRICE REMEDIATION/REMOVAL CONTRACTS

- (a) Payment of price. The Government shall pay the Contractor the contract price for services delivered as provided in this contract.
- (b) *Payments*. The Government shall make payments monthly as the work proceeds, or at more frequent intervals (bi-weekly) upon receipt of a proper and correct invoice by EPA (payment office and designated COR) as determined by the Contracting Officer, on actual work performed which meets the standards of quality established under the contract, as approved by the Contracting Officer.

The Contractor's request for payments shall include the following substantiation:

- (i) An itemization of the amounts requested, by CLIN, for the various elements of work performed by the contract covered by the payment requested.
- (ii) A listing of the total amount included for work performed by each subcontractor under the contract.
- (iii) A listing of the total amount previously paid to each such subcontractor under the contract.
- (iv) Additional supporting data (if so directed) in a form and detail required by the Contracting Officer.
- (c) Contractor certification. Along with each request for payment, the Contractor shall furnish the following certification, or payment shall not be made:

I hereby certify, to the best of my knowledge and belief, that --

- (1) The amount requested has been incurred for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;
- (3) This request for payment does not include any amount which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is	is not to be construed a	as final acceptance of	of a subcontractor's p	performance.

(Name)		

(Title)			
(Date)	 	 	

- (d) *Refund of unearned amounts*. If the Contractor, after making a certified request for payment, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall --
 - (1) Notify the Contracting Officer of such performance deficiency; and
 - (2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (i) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until --
 - (i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or
 - (ii) The date the Contractor reduces the amount of any subsequent certified request for payment by an amount equal to the unearned amount.
- (e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment requested until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future payments an amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds in excess of the amount considered adequate for the Government's protection.
- (f) *Title, liability, and reservation of rights.* All material and work covered by payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as --
 - (1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or
 - (2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.
- (g) *Final payment*. The Government shall pay the total amount due the Contractor under this contract for services performed after --
 - (1) Completion and acceptance of all work performed as specified in the performance work statement as amended by any change orders issued during performance of the contract;
 - (2) Presentation of a properly executed voucher/invoice; and
 - (3) Presentation of a release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 6305).

- (i) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be --
 - (1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and
 - (2) Deducted from the next available payment to the Contractor.

(End of clause)

SECTION J - List of Documents, Exhibits and Other Attachments

J-1 List of Documents, Exhibits, and Other Attachments

Attachment Number	Title	Date
1	Performance Work Statement - Madison County	
1.1	Operable Unit 3 (OU3) Record of Decision (ROD)	
1.2	Operable Unit 4 (OU4) Record of Decision (ROD)	
1.3	List of Eligible Properties to Remediate	
1.4	Field Sheet Summary	
1.5	Field Sheets Part 1	
1.6	Field Sheets Part 2	
1.7	Conrad Offsite Borrow Fill	
1.8	Conrad Offsite Borrow Fill Design Layout	
1.9	Conrad Tailings site date and figures	
1.10	Site Location Plat - Conrad Tailings	
2	Quality Assurance Surveillance Plan (QASP)	
3	DBA Wage Determination	

Performance Work Statement

Remedial Action,
Contract: TBD
Madison County Mines Superfund Site
OU3 Residential Soils and OU4 Conrad Tailings
Madison County, Missouri
CERCLIS ID: MON098633415

April 2015 – REVISED July 2015

Prepared by:

U.S. EPA 11201 Renner Blvd Lenexa, Kansas 66219

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1 BACKGROUND and PURPOSE

The Madison County Mines Superfund Site is a mine waste site that was designated to the National Priority List in 2003. Mine waste resulted from nearly 250 years of primitive and industrial mining and processing operations, primarily for lead, leaving 13 major tailings deposits across Madison County. Mine waste also migrated by water and wind erosion affecting streams and their associated floodplains resulting in contamination of soil, sediment, surface water and to a lesser extent groundwater. Mine waste and contaminated soil was also collected and transported by humans for use as construction aggregate used for road base and driveway surfaces, and fill and topsoil at residential properties. The site currently has seven operable units (OUs). This Performance Work Statement (PWS) addresses two operable units: OU3 Residential Properties (OU3) and OU4 Conrad Tailings (OU4).

OU3 includes residences, daycares, child high use areas and public areas that are contaminated primarily from lead in mine waste and soil, either as a result of their location in proximity to tailings and their associated downstream impacts, or transported to residential properties by construction companies or residents. In early 2000, response actions were initiated by the U.S. Environmental Protection Agency resulting from the detection of elevated blood-lead levels in children discovered in the late 1990's. Removal Action was initiated on time-critical properties (properties exceeding 1200 ppm lead) resulting in the sampling and remediation of approximately 813 residential properties between 2000 and 2006.

An Interim Record of Decision (IROD) for OU3 was declared on July 31, 2008 to initiate the Remedial Action (RA) for residential properties. Two site-specific contracts were initiated under the IROD resulting in the remediation of approximately 880 residential properties between 2008 and 2012. Approximately 4200 properties have been sampled between the combined Removal and Remedial Actions at the site. Details involving the past remediation efforts, including the number of properties, soil volumes removed and associated costs, are included in Enclosure C.

Response actions for OU3 remain the Site's highest priority. A final ROD for OU3 was signed on September 26, 2014 which sets forth the continued and final actions implemented under the 2008 IROD. Currently, there are 271 known properties eligible for remediation, and approximately 500 properties remaining to be sampled. Based on past averages, approximately 42% of all properties sampled were determined eligible for remediation. Sampling remains ongoing, but the limited willingness of property owners to provide access has made it difficult for the EPA to complete sampling. However, if all remaining properties are sampled, as many as 210 additional properties in addition to the 271 existing properties eligible could require remediation.

OU4 is located approximately 2.5 miles south of Fredericktown on Business 67, and approximately 1/2 mile east on Madison County Road 200. Flotation tailings at this location were generated during mining activities in the early through the mid 1900's. This location is on privately owned property and was used as the residential soil repository during the past two site-specific contracts. The intent is to continue using this location as the soils repository under this contract for approximately one year of construction, or until its capacity is reached.

The repository is also used as a public disposal location for lead contaminated soil and chat at the discretion of the EPA, MDNR, Missouri Department of Health and Human Services and the Madison County Health Department as part of the Voluntary Institutional Control Program (VICP). The intent of the VICP is to prevent re-contamination of the OU3 constructed remedy. It also promotes proper handling

Performance Work Statement Madison County Mines OU3 and OU4 April 2015

to prevent the spread of lead contamination to other locations during any future construction or soil disturbance activities occur, particularly at residential properties.

The OU4 ROD, signed on September 29, 2012 (see Attachment 1) includes a remedy for the consolidation of OU4-related soils and mine waste, and grading and capping the tailings/repository location. While in use from 2008 through 2012 as the residential soils repository, the contractors were required to grade and maintain the repository to prevent downstream releases that could occur from precipitation runoff and erosion. Those past maintenance and grading efforts positively contributed to the overall footprint and elevation of the tailings/repository, and it is estimated that approximately 53,000 cubic yards of material currently on site will require grading to accommodate the Remedial Design (RD) contour. It is also estimated that approximately 20,000 cubic yards of contaminated soil and sediment in the distant down gradient, downstream and County Road 200 locations will require excavation, loading and transport for consolidation at the repository. The current capacity of the RD will allow for approximately 44,000 cubic yards of additional material, including residential soils, to be transported for consolidation at the repository in order to meet the RD specifications prior to capping.

The purpose of this PWS is to describe the tasks necessary to complete the Remedial Action (RA) declared for OUs 3 and 4. The contractor shall be familiar with the RODs for each OU and utilize them for reference. All actions shall be conducted consistent with the EPA, Region 7 RODs, relevant EPA policies including but not limited to the EPA Office of Solid Waste and Emergency Response [OSWER] 9285.7-50; Superfund Lead-Contaminated Residential Sites Handbook (Handbook), August 2003; and this PWS. Definitions of key terms used in the PWS are included in Enclosure B.

The RA is being conducted pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and National Contingency Plan (NCP) requirements. Tasks described in this PWS are consistent with the RODs and the NCP. The Contractor shall furnish all necessary services in order to meet the performance standards and successfully accomplish the requirements of this PWS, including labor, materials, equipment, site management, office support, and incidental items. The constructed remedies of these response actions are necessary to protect human health and environmental risks posed by the exposure to contaminated soil, sediment and mine waste containing lead and other heavy metals.

For the purpose of this project, OU3 will commonly be referred throughout the PWS as the "residential cleanup"; OU4 will commonly be referred to as the "repository construction". The response actions for this project are to be conducted concurrently, but the finances shall be tracked separately for administrative purposes.

When conducting the work defined by this PWS, the Contractor shall communicate to the residential property owner if necessary, the following general principles:

- 1. The goal of the remedial action is to remove lead-contaminated material that poses a risk to human health, not to enhance or improve property;
- 2. Decisions made on property-specific items (e.g., tree/stump removal or dig around it, etc.) are based on the best interest of the EPA and the health of the community and the Remedial Design (RD) by MDNR for the repository construction.

Note that the EPA reserves the right to add properties to, remove properties from, and/or reprioritize the property list (Enclosure A) for <u>any</u> reason. Access has not been obtained at all the properties listed, and properties assigned to the Contractor will generally be in lots of approximately 50 properties.

For the residential properties, areas to be remediated will generally be less than one acre as described in the Handbook. The general depth of excavation may begin with a 12 inch lift, and excavation will be discontinued if the base of the excavation is confirmed to be less than 1200 ppm. The maximum depth for excavation will be 24 inches if the concentration at the 12 inch base exceeds 1200 ppm and it can be predetermined that a lead soil concentration of less than 1200 ppm lead can be achieved at the 24 inch base. A garden area must achieve a base concentration of less than 400 ppm at any depth down to 24 inches. In the event the contractor would like to receive full credit for a 12 inch lift under Horizon 1 but attempt to minimize excavation depth (as opposed to initially excavating a full 12 inch lift), the contractor may conduct XRF field sampling at any depth below ground surface to determine if a base concentration, continuous throughout the first 12 inches below ground surface) of 100 ppm lead or less can be achieved. A minimum depth excavation must be confirmed prior to the contractor completing the excavation and must be pre-approved by the EPA. The 100 ppm lead or less must be continuous beneath the zone sampled.

Note that all properties vary in size, shape, obstacles present and volume of contaminated material to be removed and the EPA places no guarantee on these variables.

The Conrad Tailings (repository) shall be used as the initial soil repository for contaminated soils excavated and transported from residential properties. The MDNR has developed the Remedial Design (RD) for the repository.

Tasks for the repository construction incorporated in this PWS include: excavate, evacuate (in stream channel) and/or grade tailings, soil and sediment at the tailings pile transition zones, floodplains, overbank deposits, creek channels, Madison County Road 200 right-of-way, and other affected downstream locations to depths achieving the base concentrations designated as the Preliminary Remediation Goals (PRGs) in the OU4 ROD; consolidate wastes; grade and contour the repository to proper design specification; establish preferential drainage to divert precipitation around the repository; utilize rock liners at steep slopes; construct terraces and/or revetments for stabilization; construct a low permeability cap; vegetate disturbed areas and/or place necessary cover such as rip-rap; and construct a lake to serve as a primary storm water retention and sediment basin.

Several EPA personnel will be associated with this contract: the Contract Officer (CO), the Project Manager (PM), and the Contract Officer Representatives (CORs). Submittals should be sent to the appropriate EPA personnel as stated in this PWS. The EPA Project Manager will often also serve as a COR for this contract. A listing of names, titles and contact information will be provided upon award of the contract, and updates of changes will be provided as needed.

The Contractor performs the tasks outlined in the PWS at all properties identified by the EPA once landowner access has been obtained. In this PWS the Contractor shall be identified as "Contractor" and the additional EPA Technical Support shall be identified as "ETS". The ETS will be performing site sampling and measurements at the Site for the EPA and will be independent of the Contractor.

2 TASK MANAGEMENT

2.1 Project Management

The Contractor shall adhere to the following when developing their Project Management Plan (PMP), schedule and methods for conducting remedial activities:

• Fieldwork shall be confined to the following times:

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- 7:00 am 6:00 pm, Monday Saturday, except national holidays
- Excavation of properties shall be conducted from March 1 through December 15. Other fieldwork may be allowed from December 16 through February 28, as weather and conditions allow.
- The Contractor shall obtain written approval from the Contracting Officer Representative (COR) to modify the stated work schedule due to adverse weather/site conditions when applicable or to conduct fieldwork on a Sunday or national holiday.
- The Contractor shall conduct activities in a manner that minimizes adverse impacts to the property owners and the general community, and promotes good public relations.
- The Contractor shall honor local customs and practices and schedule work around them, such as local fairs, funerals, weddings, parades, processions, etc., to minimize interference with these local events.
- Anyone hauling material for the project shall disclose in writing to the COR whether they have hauled lead (lead ore, concentrate, slag, batteries, etc.) or any other hazardous materials before performing such services at this Site. The Contractor shall inspect and maintain documentation on haul trucks at the beginning of each work day for any signs of lead-bearing material on the inside of the bed, undercarriage, tires, etc.
- All equipment used for hauling contaminated material shall be thoroughly decontaminated prior to being de-mobilized from the site. Decontamination procedures shall be documented (protocol followed, photographs of equipment, date decontaminated, personnel involved, etc.).
- Any equipment used at the site for handling contaminated material shall be thoroughly
 decontaminated prior to release from service. This includes, but is not limited to, any local subcontract hauling service that may perform odd jobs after work hours and on holidays or
 weekends. Decontamination procedures shall be documented (protocol followed, photographs of
 equipment, date decontaminated, personnel involved, etc.).
- The Contractor shall demonstrate that none of its subcontractors, vendors, or employees are potentially responsible parties (PRP) at this or any Superfund site and that their use or employment at this site poses no conflict of interest.
- The Contractor shall appoint crew leaders for each crew and maintain current contact information, credentials, certifications, etc., accessible to the on-site COR or EPA Representative.
- The Contractor shall notify the COR and/or other pertinent regulatory authority in writing of non-compliance with any federal, state and local laws and regulations as pertains to this contract.
- The Contractor and the EPA shall conduct bi-monthly meetings, preferrably on the first and third Tuesday mornings of every month from the date of PMP approval or on mutually agreed dates on a bi-monthly basis. Attendance at these meetings shall consist of, at a minimum, the EPA COR(s), the contract project manager and site superintendent. Other personnel may attend these meetings as needed. Meetings shall be conducted at the Contractor field office and teleconference capabilities shall be provided as needed. Meetings will address site progress, issues and future planning. Bi-Monthly Reports shall be provided to the EPA at these meetings.

2.2 Quality Assurance and Control

The Contractor shall deliver a quality work product which meets the requirements of this PWS and the Remedial Design (RD), the EPA-provided Quality Assurance Surveillance Plan (QASP, Attachment A), and the EPA-approved Quality Assurance Project Plan (QAPP). An EPA-approved Quality Management Plan (QMP) will be required as well as a site specific QAPP. A Storm Water Pollution Prevention Plan (SWPPP) will be required to ensure the Contractor has identified potential sources of storm water pollution at the Site and is prepared to reduce pollutants in storm water discharges from the Site. (See Section 4 for more information.) The Contractor shall provide qualified personnel to conduct sampling and inspection of materials, equipment, construction activities and completed properties. The Contractor shall ensure that key personnel are familiar with and have access to the specific requirements of the

contract and of this PWS. The result will be a robust quality control program that will ensure high-quality services satisfactory to the EPA.

2.3 Health and Safety Program

The Contractor shall be responsible for initiating, maintaining and supervising health and safety precautions and programs in connection with this PWS. The Contractor shall develop a Health and Safety Plan (HASP) that will ensure compliance with all applicable health and safety laws, regulations, and other requirements, including but not limited to, Occupational Safety and Health Administration (OSHA) federal and equivalent OSHA state regulations, city and county ordinances and codes, uniform fire codes, and Department of Transportation (DOT) regulations. At a minimum, the Contractor shall comply with 29 CFR (Code of Federal Regulation). Compliance with these regulations is required for all personnel working under the contract, including all subcontractors.

The Contractor shall establish all reasonable safeguards for safety and protection, including posting warning signs and other notices of potential hazards for the landowners, residents and other users of adjacent properties. The Contractor shall advise residents to stay away from excavated areas to the extent possible. The Contractor shall maintain a safe environment for workers, residents and the general public at all job locations.

If a claim of non-compliance with the HASP is made against the Contractor in connection with the performance of work, the Contractor shall notify the COR in writing within 24 hours of the claim.

The Contractor shall be responsible for coordinating the dissemination and exchange of Material Safety Data Sheets and other hazard communication information required to be made available to all employees at the Site in accordance with federal, state and local ordinances, laws or regulations.

The CO has the right to remove or bar any employee of the Contractor or subcontractor for failure to comply with Site health and safety requirements.

The CO has the authority to suspend work, at the Contractor's expense, if the COR determines that unsafe practices are being conducted at any time.

The COR has the authority to stop any unsafe activity being performed on site that is a violation of the approved HASP, at no cost to the EPA.

If a Contractor fuel storage area is located within the Site, **secondary containment around fuel storage areas is required**, even when fuel tanks do not have the minimum storage capacity necessary to trigger Spill Prevention, Control and Countermeasure (SPCC) regulation requirements.

Downstream locations at the repository shall be protected from further contamination by maintaining existing containment structures during the OU3 soil consolidation and throughout the duration of the OU4 actions. Stabilization of all impounded waste is considered an ongoing priority and shall be maintained, from start to finish of the project, utilizing best management practices (BMPs) and basic engineering controls to prevent any downstream discharges from the project area resulting from storm water runoff, erosion and dust emissions. Furthermore, the BMPs must be implemented to meet all provisions of the Clean Water Act under an approved Storm Water Prevention Plan (SWPP), required as a pre-construction deliverable. Storm water shall be controlled by the existing on-site sediment basins which may require some initial construction modification to ensure adequate capacity, structural integrity and effectiveness, in addition to continued maintenance based on actual site conditions. BMPs shall be performed in accordance with the current State of Missouri and Phase II Federal Storm Water Regulations at remedial action

locations where land disturbances of one acre or more occur. BMP monitoring will be implemented by the EPA and any respective state jurisdictions during and shortly after precipitation runoff events and will be limited to qualitative evaluations of the effectiveness of storm water and erosion control measures.

2.4 Handling of Sensitive Information

All personnel working under this contract shall be responsible for preventing the unauthorized disclosure or release of information provided by the EPA and any other document or PWS deliverable containing personal and/or or identifying information.

2.5 Schedule of Residential Cleanup and Repository Construction

The Contractor shall propose a schedule for properties of the residential cleanup and repository construction associated with this contract for EPA approval in the PMP. As part of the PMP the Contractor will submit a General Schedule which will include a timeline and projected number of properties to be completed each month for the duration of the project in addition to the phased approach to complete construction activities to be performed at the repository. The Contractor will also maintain and update a written Revised Work Schedule for the site projected out two months in advance of current operations and provide detailed plans for the work scheduled two weeks in advance of the current operations as part of the Bi-Monthly Report. The detailed plans shall include a list of upcoming yards to be opened, excavated and restored (those in which final grade has been achieved, seeded, etc. – see section 4 for details). The Contractor shall also include the upcoming activities planned for construction at the repository. The Contractor shall also provide daily reports with details of the planned activities for that day. All timelines, schedules and plans shall be posted in an area accessible by EPA on-site representatives. Upcoming site walks shall generally be scheduled to be conducted Tuesday through Thursday and at least two days advanced notice given to EPA on-site representatives in order to accommodate the rotating EPA CORs schedules which usually involves travel from Kansas City at the beginning and end of each work week.

The Contractor shall prioritize the residential cleanups based on the following system: 1) the presence of children, 2) properties with higher lead concentrations, followed by 3) properties in a given area to minimize frequency of disturbance to residents in that area. Circumstances may arise in which the EPA is made aware of particular properties that should be remediated in an expedited fashion. In such cases the Contractor will be notified and shall address the properties with respect to their priority based on the factors outlined above. If a property that does not require remediation (e.g., lead concentration in surface soil is <400 milligrams per kilogram [mg/kg]) has been placed on the list, the Contractor shall notify the COR in writing, shall not remediate the property, and will record this in the Bi-Monthly Report.

The Contractor shall prioritize the repository construction to first accommodate the transport and consolidation of residential soils, and phase in the excavation and consolidation of transition zone mine waste, floodplain soil and stream sediment. The final phases of the repository construction will be to complete construction of the engineering components such as drainways, revetments, terraces, dam, cap and revegetation in a manner that promotes efficiency and without redundant efforts.

The Contractor shall cease excavation activities associated with the residential properties after December 15 and will not resume excavation activities until March 1 of each contract year. During the December 16 through February 28 period, other field work may be performed (i.e. previously excavated properties may be backfilled or sodded, completion of repairs or punch list items, etc.) as weather and conditions allow. Construction at the repository may be performed as weather allows to coincide with the stage of the residential cleanup in progress and the phased approach of completing construction at the repository.

The following table summarizes the significant dates detailed in this PWS:

Significant Project Schedules and Dates				
Description	Start	End		
Fieldwork Time	7:00 AM	6:00 PM		
Fieldwork Days	Monday	Saturday		
Excavation Season	March 1st	December 15 th		
Backfill Deadline	Start of excavation	21 Days after excavation start*		
Lawn Inspection	End of seeding	30 Days after seeding		
Lawn Maintenance Period	End of seeding	120 Days after seeding		
Project Management Plan (PMP)	15 Days after receipt of EPA comments on draft			
PMP Updates	10 Days after date of change			
Health and Safety Plan (HASP)	15 Days after receipt of EPA comments on draft			
Quality Management Plan (QMP)	15 Days after receipt of EPA comments on draft			
Quality Assurance Project Plan (QAPP)	15 Days after receipt of EPA comments on draft			
Storm Water Pollution Prevention Plan (SWPPP)	15 Days after receipt of EPA comments on draft			
SWPPP Updates	10 Days after EPA notification of needed update			
Daily Reports	Due at the start of each workday			
Bi-Monthly Reports	Submitted electronically to all CORs on the 1 st and 3 rd Mondays of every month, with a hard copy to the EPA at the Bi-monthly Project Meetings			
Bi- Monthly Project Meetings	1st and 3rd Tuesdays mornings of every month			
Bi-Monthly Property Folders	Bi- Monthly Meetings, after Final Property Closeout			
Draft Final Report	30 Days after completion of fieldwork			
Final Report	20 Days after receipt of EPA comments on draft			
Incentive Justification	45 Days after completion of fieldwork			

^{*}Time is of the essence in backfilling after excavation. It is important to note that backfill must be completed with acceptable quality material within 21 days after each excavation start.

2.6 EPA-furnished Resources

The EPA will provide the following resources to the Contractor:

- Appropriate property records, reports, data and information in the available existing Site files (e.g., property sketches)
- Access to EPA policy and guidance documents
- Final MDNR Design and Specifications for OU4 Conrad Tailings

2.7 Requirements of Key Personnel

The key personnel resumes submitted with bids should reflect the requirements below. Upon approval of key personnel by the EPA, no key personnel may be replaced without the approval of the CO. Requests for changing key personnel should be made through the COR, who should be provided a resume containing the relevant experience and qualifications of the key personnel replacement. The COR will present the changes to the CO.

<u>Project Manager</u> (PM) - The PM is the lead company representative responsible for all contractor actions during the performance period. The PM must demonstrate at least five years experience as a PM in residential earthmoving and environmental hazardous waste. The years of required experience for each of the categories can be demonstrated on separate contracts or combined on a single contract (i.e., if the PM worked for five years under a contract where residential earthmoving involving an environmental hazardous waste both occurred, the PM has met the five year requirement). The PM must also demonstrate the following experience factors:

- Managerial and/or technical experience in remediation services involving the release of
 hazardous materials and other contaminants or pollutants to the environment. This includes, but is
 not limited to, knowledge of residential yard excavation, transportation and disposal, or other
 disciplines directly related to the requirements of this PWS;
- Management of technical and administrative support services;

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- OSHA 10-hour Construction Outreach training;
- 40-hour OSHA HAZWOPER training and be up to date on HAZWOPER 8-hour annual refreshers.

Site Superintendent (SS) – The SS is the on-site point person overseeing all the construction and is required to be on-site throughout the project while work is occurring. The SS must demonstrate at least three years experience as a SS in residential earthmoving and managing and supervising hazardous cleanup personnel. The years of required experience for each of the categories can be demonstrated on separate contracts or combined on a single contract (i.e., if the SS worked for three years under a contract where residential earthmoving involving an environmental hazardous waste both occurred, the SS has met the three year requirement). The SS must also demonstrate the following knowledge or experience:

- Experience managing and supervising professional and laborer hazardous cleanup personnel for at least three years;
- Working knowledge of hazardous materials transportation and disposal regulations;
- Experience managing and supervising professional and laborer hazardous cleanup personnel
- for at least three years;
- Ability to track Site costs routinely;
- OSHA 10-hour Construction Outreach training:
- 40-hour OSHA HAZWOPER training and be up to date on HAZWOPER 8-hour annual refreshers;
- Ability and qualifications to provide site-specific training to his/her work force.

<u>Foreman</u> – The Forman is the on-site employee responsible for managing and directing work crews and is required to be on-site throughout the project while work is occurring. The Foreman must demonstrate at least one year in directing residential earthmoving and in directing both general labor and hazardous material personnel. The Foreman must have OSHA 10-hour Construction Outreach training, 40-hour OSHA HAZWOPER training and be up to date on HAZWOPER 8-hour annual refreshers.

<u>Quality Assurance Manager</u> (QAM) – The QAM is responsible for managing and accomplishing the overall assurance and quality control for the project. The QA manager must have three years of total combined QA/QC experience and have three years experience directing QA/QC personnel in residential earthmoving or hazardous/contaminated waste moving work environment.

<u>All other employees:</u> All other employees must have 40-hour OSHA HAZWOPER training, OSHA 10-hour Construction Outreach Training, and be up to date on HAZWOPER 8-hour annual refreshers.

Training certificates/documentation and all other required documents for ALL on-site personnel shall be kept on-site for EPA review at any time.

3 PERFORMANCE CRITERIA AND REQUIREMENTS

3.1 Performance Objectives

The ROD for each operable unit sets forth the Selected Remedy in order to accomplish Remedial Action Objectives for the Site.

OU3 - Residential Properties

The performance objective for the residential cleanup is to reduce the human health risk of exposure to lead by removing lead-contaminated material from the assigned residential properties that exceed 400 ppm lead at the surface and provide a minimum 12 inches of clean soil that is 100 ppm lead or less. This includes excavating lead-contaminated soil, chat, gravel, etc., to any depth below ground surface within the first 12 inches to achieve a soil concentration of 100 ppm lead or less. If 100 ppm lead cannot be achieved within the first 12 inches, excavation will continue to a full 12 inch depth below the original ground surface for testing by the EPA/ETS. If the soil base concentration exceeds 1200 ppm at the 12 inch base, the contractor will continue excavation if it can be determined that a concentration of less than 1200 ppm with the next 12 inches, or at a maximum of 24 inches below the original ground surface. If it determined this can be achieved, the contractor will continue excavation to the depth at which less than 1200 ppm remains at the base depth. If it is determined that a concentration of less than 1200 ppm cannot be achieved within 24 inches below the original ground surface, excavation will be discontinued at 12 inches and a demarcation barrier will be placed at 12 inches below the original ground surface. Garden areas are an exception where a base concentration of less than 400 ppm must be met within 24 inches of the original ground surface. Drip zones will also be remediated if they exceed 400 ppm lead. The EPA or ETS shall perform sampling and analytical procedures to make the decisions relating to excavations in conformance with following the EPA Site QAPP, QASP, related guidance and relevant SOPs. The property will then be restored with clean fill and topsoil and restored to pre-excavation conditions. Satisfactory completion of these tasks will result in achieving individual property closeouts with the landowners and the EPA/ETS.

OU4-Conrad Tailings/Repository

The objective for the tailings/repository cleanup is to remove tailings, soil and sediment from the floodplains, overbank deposits, creek channel, Madison County Road 200 right of way, and other affected downstream locations to a depth where the concentrations meet the Preliminary Remediation Goals from the base of the tailings pile location to the confluence of the unnamed tributary to Mill Creek (approximately 4000 feet); consolidate wastes which includes on and off-site source material in addition to residential soil; grade and contour source locations and repository; establish preferential drainage to divert precipitation runoff and prevent erosion using rock lines and rip-rap; construct a low permeability cap, vegetative cover and rock revetments as necessary to stabilize mine waste source locations; construct a dam for controlling surface runoff, treating infiltration water and seeps from the repository; and install a groundwater monitoring network consisting of four monitor wells in locations determined by the MDNR and EPA.

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The Contractor shall meet all provisions and specification of the MDNR Remedial Design (RD) in order to accomplish the RA and the cleanup criteria established by the EPA Remedial Action Objectives for OU4 as follows:

Media	Lead	
Madison 200 right of way	400	5
Floodplain/overbank deposits	400	5
Riparian Buffer sediment/soil	120	5
Sediment (unnamed tributary)	150	5
Residential (soil)	Refer to Residential Cleanup	Refer to Residential Cleanup

Note: The OU4 ROD sets forth the specific Preliminary Remediation Goals (PRGs) and Remedial Action Objectives (RAOs)

3.2 Performance Standards

For the purpose of this contract, remediation of residential properties involves three distinct phases: 1) pre-excavation activities; 2) excavation activities; and 3) post-excavation activities. Each of these phases has distinct requirements that are described in the following subsections. In general, the residential cleanup is addressed first, followed by the repository construction tasks.

For residential properties, this contract shall be paid on a unit price basis according to the square footage cost awarded in the contract. Properties may be closed out prior to the expiration of the 120 day warranty period if they meet all closeout requirements, but warranty period issues must be addressed within the 120 day period as they come up, as described in the Contract and associated documents. Payment allocations (percentage of total payment per property based on the cost unit category) will be based on the total square footage remediated, pro-rated by the completion of three construction components applicable to each residential property remediated. The construction components and payment allocations for each billing cycle for residential properties are:

- 1- Completion of soil excavation 60%
- 2- Completion of backfill and grading 20%
- 3- Completion of restoration/property closeout 20%

EXAMPLE

10,000 square feet on a property is remediated. The awarded cost (for price per square foot) is \$1.00 per square foot. Payment would be allocated as follows:

- 1- \$6,000 at completion of excavation or, 60% of the total square footage
- 2- \$2,000 at completion of backfill and grading or, 20% of the total square footage
- 3- \$2,000 at completion of restoration/property closeout or, 20% of the total square footage

For the repository construction, the contract will be paid on a unit price for excavated materials and the completed construction of the engineering controls per each contract line item on a pro-rated basis for the estimated percentage of completion of each unit.

This contract provides financial incentives which address work quality/property owner satisfaction/property closeout; local hiring and material purchase, and reduced diesel emissions. Topsoil from all contiguous counties surrounding Madison County will be considered a local purchase, however Madison County is the only county that will qualify as a local purchase for all other materials unless approved in writing by the COR and CO. Details relating to the incentives are described in the QASP (see Attachment A). Liquidated damages are assessed to compensate EPA for harm likely to result from contractor failure to complete timely backfill after excavation in accordance with the provisions of the PWS may be assessed during any period of performance.

There may be multiple milestones and/or deliverables for each performance objective (see Section 4 Deliverables). Final decision regarding milestone and acceptable deliverable completions resides with the EPA COR and CO. The EPA has the authority to request for review any Contractor project documentation at any time, up to and including formal contract closeout.

3.3 Pre-Excavation Activities

Prior to beginning any excavation, the Contractor shall perform the following pre-excavation activities.

3.3.1 Task 1 – Plans

Prior to beginning Site work, the Contractor shall complete and obtain EPA approval of the following plans (see Section 4 Deliverables): Project Management Plan (PMP), Quality Management Plan (QMP), Quality Assurance Project Plan (QAPP), a Health and Safety Plan (HASP) and a Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall also update the Revised Work Schedule for planning the following two months. The Contractor shall also provide the EPA with the detailed Daily Reports as described in this PWS.

3.3.2 Task 2 – Local Office

The Contractor shall maintain work space (local office) in Fredericktown, Missouri for the duration of the contract, beginning at the onset of pre-excavation activities. The work space shall include a reception area and high-speed internet access, have sufficient parking, and be publicly accessible. The work space shall include space for planning and meeting with local citizens and EPA personnel, separate from the Contractor's work area. In addition, it shall also have bathroom facilities that are in compliance with local and state regulations and an environmentally controlled area to enable sample preparation and analysis.

The Contractor shall set up at the beginning, and remove at the end of construction, all temporary facilities, pre- and post-project signage, develop the plans listed in Section 4 Deliverables Section of this PWS and provide cleanup verification through soil sampling using XRF and confirmatory laboratory sampling. Deliverables shall be submitted by the Contractor to the EPA for approval pursuant to this PWS and the schedule defined.

3.3.3 Task 3 – Properties, Site Sketches, and Access Agreements

A map outlining the area of the properties requiring remediation is included in Enclosure C. The EPA will provide CDs including site sketches which provide graphical depiction of the residential properties, analytical data, and the footprint of permanent structures. The residential properties subject to this PWS require remediation of areas depicted in the property sketch. **Not all sketches are available at this time and not all sketches are drawn to scale.** As a result, some sketches may require updating if the pre-

excavation site walk reveals changes to the property. If a site sketch does not accurately identify the property or the contaminated portions, the Contractor shall immediately notify the COR to have the sketch corrected.

Prior to beginning excavations at each property, the EPA may have obtained a signed access agreement for the property. In the event that an access agreement has not been signed, it is the responsibility of the Contractor to attempt to acquire a signed access agreement. If after mailing, calling, and an in-person attempt the contractor is unsuccessful, the contractor shall provide a record of the attempts to the EPA, and the EPA will provide another property as a replacement as available. In cases where a legal property purchase contract is in place on a piece of property, the Contractor shall notify the EPA, and the Contractor will obtain access from both the current owner and the prospective buyer.

The Contractor shall document in writing any/all agreements made with property owners within the scope of this PWS (see Section 3.5.3). The agreements shall be included in the property file folder and described in the Bi-monthly Reports. The agreement must be signed by both the property owner and a Contractor representative and clearly state all agreements reached. For example, these agreements may include areas to be left undisturbed or areas requiring specific restoration actions. The Contractor shall also fulfill the conditions stated in the agreements within the scope of this PWS. If a property owner insists that areas possessing contamination not be remediated (e.g., flower beds, landscaping, etc.) the Contractor shall: 1) notify the COR, unless present, of the proposed change; 2) illustrate such areas on a second site sketch; 3) include the signed agreement form with an explanation why such area was not remediated, and 4) place the documentation in the on-site records (property file folder). The Contractor shall provide the EPA a copy of all such site sketches in the property file folder. Occasionally, the EPA may enter into agreements with property owners regarding the property remediation. If such a written agreement exists, it will be provided to the Contractor prior to beginning the excavation at the relevant property. The Contractor shall not establish any documentation or agreement with any property owner that exempts the Contractor from his/her obligation to complete remediation or restoration of the property or deliverables stated in this PWS. A copy of any agreement with a property owner will be provided to the EPA once the agreement is signed and the Contractor shall include the agreement in the property folder.

3.3.4 Task 4 - Drip Zone Sample Collection

Once access is obtained but prior to the pre-excavation site walk, the EPA/ETS shall collect a drip zone sample if drip zone information is not available. Yards sampled are listed in Enclosure A. The composite sample consists of four aliquots of surface soil (0-1 inch bgs) collected from 6 to 30 inches from the exterior walls of the house or other painted building in each sample area that is not scheduled to be excavated. The EPA shall enter the appropriate data generated from sample analysis into the EPA-provided database. If EPA-sampled drip zones exceed a lead concentration of 400 ppm, then the drip zones around the entire structure will be excavated and restored at any home that qualifies for soil remediation. Drip zone soils within any quadrant that qualify for excavation will also be excavated as part of the quadrant excavation, but the entire drip zone around the home will only be excavated if it also exceeds a lead concentration of 400 ppm.

3.3.5 Task 5 – Pre-Excavation Site Walks

The Contractor shall schedule the pre-excavation site walks at properties with the property owner or property owner representative prior to initiating excavation. This will involve the following activities:

 Providing the site walk schedule to EPA and coordinating with the schedules of the property owners and contract personnel

- Establishing a meeting time at the property to conduct the pre-excavation site walk
- Scheduling site walks one to two weeks prior to construction activities at each property
- Keeping a list of scheduled pre-excavation site walks and notifying the EPA at least two working days in advance of the schedule.

The Contractor shall ensure that site walks are not scheduled so far in advance of the estimated date of mobilization to the property that information generated during the site walk (excavation area delineation, Missouri One Call System or Dig-Rite requirements, etc.) is lost or outdated.

In the event that a site walk cannot be scheduled Tuesday through Thursday, the contractor must notify the COR for approval to conduct the site walks outside this period on a date when the homeowner or a designated homeowner representative is available. The EPA will attempt to accompany the contractor on site walks scheduled Tuesday through Thursdays. Site walks scheduled outside this period, which again are subject to approval by the EPA, may be conducted exclusively by the contractor without an accompanying EPA COR or representative with the approval of the EPA COR or CO.

The purpose of the pre-excavation site walk with the property owner is to discuss the proposed excavation activities where excavation will occur, identify areas of concern including privately-owned, buried utilities or structures otherwise known only to the property owner that may otherwise not be identified through the Missouri One Call utility locates. The contractor must determine with the property owner any outstanding conditions of the property that may be subject to concern to both the homeowner and the Contractor to minimize any delays that could impede the progress of remediation and restoration of the property, in addition to inconveniencing to the property owner or residents. This could include, for example, taking angle measurements on leaning retaining walls; documenting pre-existing personal property damage in areas to be accessed and remediated and; to definitively document existing, buried features such as storm water or gutter/stormwater drain lines, phone and electric lines installed by the homeowner, or any other buried structure or feature which would otherwise not be identified during the Missouri One Call or Dig-Rite utility clearance (see additional reference in Task 6). At this time, the Contractor shall discuss alternate entrances/exits onto the property with the EPA and landowner necessary to accomplish excavation and loading. Should entrances/exits require access to adjacent properties, the Contractor shall obtain formal, written access from every affected property owner, including city and county municipalities, and notify the COR of the alternate access need. All extenuating site conditions must be thoroughly documented on the site walk report.

The Contractor shall take photographs and video which display the date obtained of the pre-excavation state of the property and all locations from the street (alleys, sidewalks, etc.) used to access the property. If there is ever disagreement as to the pre-excavation condition of the property and the photographic and/or video evidence is insufficient to make determination of fault, the Contractor shall be responsible to address the complaint, make necessary repairs and provide like for like personal property to the homeowner at no cost to the EPA. For each photograph, the date, time, location (with GPS coordinates) and viewing direction shall be recorded. At a minimum, the digital camera used shall be auto focusing with a minimum image resolution of 5 megapixels and equipped with a flash for low light conditions. The camera shall also have a minimum two times zoom capacity and be capable of transferring digital photographs to a "JPEG" or "TIF" electronic format.

The Contractor shall maintain all photographic and video evidence on site and make it available to the EPA upon request. The Contractor shall ensure that video/photographic information can be viewed on site. The Contractor shall use the site sketch as a guide in determining which areas of the property shall

be excavated. The EPA reserves the right to modify the area of excavation based on any new information from drip zone sampling, site walks, or other sources.

Generally, the property owner is responsible for removing personal items from the area to be remediated at residential properties. The Contractor will explain to the property owner what items need to be moved from excavation/access zones during the pre-excavation site walk. In cases where personal items remain on the property that would interfere with the excavation, the Contractor shall temporarily relocate (with the property owners' written permission) the personal items (e.g., stacked wood, swing sets, lawn items, items the landowner is unable to move, etc.) in order to complete the work unless otherwise informed by the EPA. As required for excavation and approved in writing by the landowner, the Contractor shall clear and dispose of, or relocate, limited amounts of bushes, shrubs, and small trees within the area of excavation. Disposal of these materials shall be at an approved county or municipal waste facility, NOT the soil repository unless approved in advance by the COR. Permanent structures (houses, pools, patios, decks, sheds, etc.) shall not be removed. Due to site conditions, sidewalks and driveways may require excavation; however, prior written approval from the COR and the property owner is required on a case by case basis. Removal of large trees or large tree stumps or concrete pads is generally not necessary. There is potential for lead contamination to be present under decks, porches, patios, and inside garages or outbuildings that the Contractor shall be required to excavate. The Contractor shall use the form provided in Enclosure D (or another form approved by the EPA) to document pre-excavation conditions at each residential yard.

The Contractor shall also prepare and maintain dated photographic/video documentation of all transportation routes planned for use by trucks and other heavy equipment the Contractor plans to use prior to work in a given area. If after remediation, accusations of damage are made by a property owner, the city, county, or state, and no photographic/video documentation exists, or the quality of information doesn't allow the relevant parties to make a determination of fault, the Contractor shall make the necessary repairs at no cost to the EPA.

3.3.5.1 The Contractor shall establish a formal, written agreement with the Madison County Commission and all relevant municipalities/communities regarding truck traffic before excavation begins. The agreement shall clearly state that the EPA is not responsible for road wear or damage resulting from routine or negligent use of the road for transportation purposes by the Contractor or the work the Contractor is performing. This agreement shall, at a minimum, define primary haul routes to and from repositories and backfill source areas; identify road and bridge weight limits to help prevent road and bridge damage due to truck traffic, and; include a detailed plan to provide for repair or reimburse the respective jurisdiction(s) for such repair with timelines for repair/reimbursement. The Contractor shall comply with all load limits on roads used and provide documentation to the COR and Counties/ municipalities of any situation that requires these limits to be exceeded. The Contractor shall also minimize, to a practical extent, truck roadside idling while waiting to be loaded and slow/no speed steering.

3.3.6 Task 6 – Identify Utilities, On-site Sewage Systems, and Other Buried Structures

The Contractor shall be responsible for contacting Missouri One Call (also commonly referred to as DIG-RITE) to locate and mark all utilities prior to beginning excavation activities. In any event the Contractor causes damage to or compromises the structural integrity of any utility (including unknown or unexpected utilities) the Contractor shall repair or replace such utilities to the satisfaction of and at no cost to property owner, utility company, and the EPA. All repairs or replacement of damaged utilities must meet all current local, county and/or state ordinances and codes.

The Contractor shall make best efforts to interview and formally document property owners/utility workers and locate utilities and buried structures that are not located by the "1-800-DIG-RITE" utility line locator system for Missouri. This should include interviewing homeowners and conducting a thorough site inspection, including but not limited to gas lines, electric lines, irrigation systems, on-site sewage systems and subsurface drainage systems that are part of the property and installed by the property owner. The Contractor shall contact the EPA where standard excavation could cause harm such as around septic tanks or near utilities (fiber optic lines, gas and water mains, sewers, etc.). In such cases, limited or no excavation may be authorized by the EPA. Areas not excavated due to utilities or where any contamination exceeding the cleanup standard is left in place shall be documented by the Contractor on the As Built Site Sketch, photographed and kept in the site file with an "Areas Not Addressed Summary" describing portions of the property and circumstances where soils exceeding cleanup criteria were not remediated. The Contractor shall repair or replace, in accordance with local, county, and state regulations, any on-site sewage systems or other regulated structures damaged during these activities. Modification or major repairs to on-site sewage systems shall be conducted in accordance with Missouri On-Site Wastewater Treatment Regulations: http://health.mo.gov/living/environment/onsite/lawsregs.php. Information specific for Madison County can be obtained through the County Health Department: http://www.madisoncountyhealth.us/.

Collapse/Fill/Plug/Cap Mine Shaft, Vent Pipes, Decant Structures and Water Well

The Contractor shall abandon all mine shafts (1 known), vent pipes (none known), decant structures (2 known) (3 known) and water wells (1 known) encountered during field activities in accordance with the design and state requirements. The Contractor shall refer to the contract design drawings for detailed information on numbers and locations of these features. Mine shafts, vent pipes and wells may be uncovered or discovered during the remedial action, but there are currently none known or anticipated to exist in addition to those referenced. Mine and decant structure shaft filling and water well abandonment must meet the closure requirements included in the design specifications in accordance with the State of Missouri Laws and Regulations.

Demolition, Clearing and Grubbing

The Contractor shall demolish and properly dispose of two on-site wooden structures (one with galvanized metal siding and roof, the other wood siding with an asphalt shingle roof) and properly dispose of these materials at a Construction and Demolition Landfill approved by the State of Missouri. The contractor shall demolish concrete (former mill works) structures that will interfere with the design plan, but may leave in place concrete structures that will otherwise not interfere with completion of the RA and RD. Demolished concrete structures may be used as fill to assist in the completion of work referenced under Task 3-Collapse/Fill/Plug/Cap Mine Shaft, Vent Pipes, Decant Structures and Water Well.

The contractor shall clear and grub trees, shrubs and vegetation in the **designated** project areas necessary to accommodate **access to disposal areas**, construction of the lake, and to access, excavate and/or grade tailings, contaminated soil and sediment for consolidation to meet the design plans and specifications. Cleared materials may be burned using an air curtain destructor under permit by the Missouri Department of Natural Resources. Other options include grinding/chipping, harvesting, and/or disposal at a local or state approved disposal facility. The estimated maximum acreage for clearing and grubbing is **24** 10 acres, but this acreage is not guaranteed.

3.4 Excavation Activity Requirements

3.4.1 Task 7 – Recordkeeping

The Contractor shall create a daily written record of the work progress for each day work is performed at the Site. An example format can be found in Enclosure G. On the first and third Mondays of every month, the Contractor shall electronically submit a Bi-Monthly Report of all activities of the previous work period and provide detailed plans for the next work period to the EPA PM and CORs as described in Section 4. Bi-Monthly Reports shall be in Microsoft Word format. More information can be found in Section 4 and in Enclosure F. Generally, the Contractor shall meet with the EPA each work day to review the work completed and the work projected for the day. The Contractor shall keep a record of each property that is completed which includes but is not limited to: Access agreements; records of correspondence; pre- and post-excavation site sketches and photo/video (each property's photos and videos will be recorded on an individual property-specific digital video disk (DVD), with no additional data being collected or stored on that DVD); the estimated square footage, tons/cubic yards, number of truckloads and type of material removed from the property; final excavation area(s) locations and measurements; the tons/cubic yards and the number of truckloads of clean soil/gravel backfilled at the property; the dates work was performed at the property (site walk, excavation start and completion, backfill start and completion, final grade achieved, seeding, and final restoration and closeout); and sample results including drip zone and confirmation sampling results. The Contractor shall input and maintain this data in an EPA-provided database. The Contractor shall have a copy of Microsoft Word, Microsoft Excel, Microsoft Access, Adobe Reader, and a computer with high speed internet access at the local field office for this task.

The Contractor shall be responsible for preparing, obtaining, and maintaining all required permits and licenses for work involved in this project prior to starting excavation. With respect to permits, licenses, or any fulfillment of their substantive requirements, the Contractor shall notify the appropriate state and local agencies as to the nature and timing of activities that will occur.

The Contractor shall be responsible for obtaining data, maintaining records, and preparing all reports and submissions required to satisfy the PWS and other regulatory requirements.

The Contractor shall be responsible for documenting all correspondence with property owners, including those related to homeowner complaints. The Contractor shall use a standard form to track the complaints. An example form is provided in Enclosure H. The Contractor shall handle each complaint individually and submit a compilation of the complaints that occurred within the reporting period with each Bi-Monthly Report.

The Contractor shall maintain all site documents in electronic format and shall maintain a hard copy and a media disk of all site-related documents in the Contractor's site office (see Section 3.5.3 for more information). Upon request by the EPA, the Contractor shall provide the EPA with hard copies and/or electronic copies of any site document.

The Contractor shall provide copies of the pre- and post-excavation photographs taken for each property in the Property Folder Submissions and compiled at the end of each contract year. Photographic copies shall be provided electronically in Joint Photographic Experts Group (JPEG) format on the property DVD. (Note: other video/photo formats may be accepted with prior written approval from the COR.) The Contractor shall also provide copies of photos and video (digital video clips will be provided in Moving Picture Experts Group (MPEG) or Windows Media Video (WMV) format on the property DVD) taken of

private, city, and county roads at the end of each contract year in electronic format. (Note: other video/photo formats may be accepted with prior written approval from the COR.)

The Contractor shall provide all electronic and hard copy files to the EPA at the end of work at each property and prior to the end of the contract.

3.4.2 Task 8 – Excavation of Properties

The objective of the excavation work is to remove lead-contaminated material greater than or equal to 400 parts per million (ppm) in areas delineated by the EPA and consistent with the ROD. For this action, excavation will be performed to address lead-contaminated materials. Should a presence of other heavy metals be detected in excess of any established clean-up levels, these areas would also be addressed. The area of a residential property to be excavated should not exceed one acre unless authorized by the EPA. In general, excavated areas will be located within approximately 100 feet of an occupied or vacant dwelling as represented on site sketches provided. Occasionally, the EPA may require additional excavation outside of the normal parameters of a property. This may include play areas or gardens outside of 100 feet from the home. The Contractor shall report any potentially contaminated soil (substances other than heavy metals from mining activities) to the EPA prior to excavation (evidence of oil stains, strange odors, etc.). If during the excavation the Contractor identifies an old fuel tank or soil that has been contaminated by any other substance (e.g., fuel oil, solvents, asbestos tiles, etc.), the Contractor shall stop excavation and notify the EPA immediately. The Contractor should document site conditions and notify the EPA should they discover any substantial anthropogenic materials. Generally, the Contractor shall not excavate on a cap or areas with dense vegetation (woods), unless authorized by the EPA. Additionally, the Contractor generally shall not be required to remove past boundaries, such as the end of a property, into a pasture, or within a buffer zone or riparian corridor of a creek/river. Children's play areas, such as swing sets and sand boxes shall be the Contractor's first priority at a given property unless otherwise approved by the EPA.

The Contractor shall confine his/her activities to the residential property locations designated as requiring excavation, the soil repositories as determined by the EPA (Conrad Repository and/or a newly developed repository), backfill source areas as determined by the Contractor, and all transportation routes approved by the EPA.

The contract is a fixed, unit price contract under which payment to the Contractor will be based on area remediated in square footage of contaminated soil/chat removed on a price per square feet basis and within two depth horizons: 12-inch horizon (CLIN 0001) and 24-inch horizon (CLIN 0002). The surface area of lead-contaminated soil removed and the horizon under which the applicable payment will be made will be included in the post-remediation (As-Built Sketches) and as measured by the ETS, and confirmed by both the Contractor and the EPA.

The Contractor shall achieve the cleanup objectives at each property in the following recommended process:

The Contractor shall notify the EPA of both the scheduled start of each property excavation, and when the Contractor is nearing the completion of soil removal at the property under either Horizon 1 or Horizon 2 provisions as stated below. Prior to completing the excavation, the EPA or ETS shall measure the lead concentration by taking XRF soil samples to verify that the cleanup criteria are met. Sample collection and processing will often take several hours and possibly up to a day for analysis, particularly in wet conditions. The contractor should plan excavations with expected analysis delays for a 24-hour period after the sample is collected.

Horizon 1 – Ground surface to 12 inches below ground surface: The first 12 inch horizon applies to any excavation whose depth is between the original ground surfaces, down to 12 inches below ground surface and achieves a lead soil concentration of less than 1200 ppm at the 12 inch base (see Task 8- Excavation of Properties). At such time the applicable soil concentrations are confirmed by the EPA/ETS, the area and depth horizon will be measured and confirmed by the Contractor and the EPA. Once confirmed, excavation is considered complete and can be backfilled. An exception to removing a full 12 inch lift in Horizon 1 is if the Contractor can display that an average soil lead concentration of less than 100 ppm (maximum lead concentration for residential cleanup backfill/topsoil) can be achieved at any depth less than the full 12 inches, is continuous to a full 12 inch depth below ground surface, and is approved by the COR, full credit will be granted under the Horizon 1 payment schedule. It is the burden of the Contractor to initiate this finding which then must be confirmed by the EPA/ETS.

Horizon 2 – 12 to 24 inches below ground surface: The 12 to 24 horizon applies to any excavation below 12 inches in depth from the original ground surface that achieves a base soil concentration of less than 1200 ppm lead. This horizon can only be accessed if: 1- The Contractor can display by digging test pits, sampling and confirming concentrations of less than 1200 ppm lead can be achieved within the 12 to 24-inch depth, and 2- the Contractor is pre-approved by the EPA in advance to commence excavation in the 24-inch horizon. If a soil concentration below 1200 ppm lead cannot be achieved at the base of a 24" excavation, Horizon 2 shall not be accessed; excavation will be discontinued at the 12 inch base; and a permanent demarcation barrier will be placed at the 12 inch excavation base prior to backfilling.

Garden areas are an exception to the Horizon 1 and 2 process of remediation. In garden areas, if the insitu soil samples or composite sample described above do not meet the cleanup goal of less than 400 ppm lead after excavation of the first 12 inch (Horizon 1), excavation will continue until a soil base concentration of less than 400 ppm lead is met or to a full depth of 24 inches. If the concentration at the base of the additional 12-inch is not below 400 ppm as verified by the EPA or ETS, the Contractor shall place a pre-approved visual warning or demarcation barrier. The 100 ppm exception rule does apply to garden areas.

Prior to backfilling, the Contractor shall document the location and dimensions of any contaminated material left in place and record the location and dimensions of the barrier placed at depth on the As-Built post-excavation sketch for each property.

Within five days of meeting the cleanup criteria or placing a barrier at depth at a property, the EPA or ETS shall enter the final excavation base data into the EPA-provided database. This data shall also be provided to the Contractor. The Contractor shall place sampling data on a post-excavation site sketch within two days of receiving the results.

Excavations are required to be of fairly uniform depth across the surface area of a property. The Contractor shall not mechanically spread contaminated material onto clean areas and will take all necessary precautions to prevent the spread of contaminated materials (plastic barrier, erosion control measures, etc.). If cross contamination or contamination spreading is identified by the EPA, the contactor shall remediate the areas affected at no cost to the EPA.

The Contractor shall excavate soil/gravel without damage to houses, sidewalks, curbs, driveways, utilities, and other items at each property. The Contractor shall exercise caution when excavating adjacent to permanent structures (houses, patios, pools, decks, walkways, retaining walls, etc.). Excavation of soil beneath permanent structures shall not be performed in cases where these areas are inaccessible. If a deck extends away from a building and is located in a designated, lead-contaminated area and the area underneath the deck is accessible, the material under the deck shall be excavated. Damage to sidewalks, structures, possessions, landscaping, etc., and subsequent repairs shall be

thoroughly documented as to the cause, effect and resolution by the Contractor. The Contractor shall make realistic efforts to resolve property owner concerns about property damage to the property owner's satisfaction. Please note: The EPA has no financial liability regarding damage to any property under this contract.

For the repository construction, the Contractor shall grade and/or excavate and transport mine waste, sediment and soils (source materials) for consolidation/disposal. Grading of materials in the transition zones (typically located outside the perimeter of the current pile) which requires only grading to accomplish consolidation is considered "on-site" source material. On-site source material is to be included in the acreage determination for grading. Materials located outside the transition zones, considered "off-site source" materials, are those in distant down gradient, downstream and Madison County Road 200 locations.

The off-site source materials will require excavation, loading and transport for consolidation. Since the resulting excavation base in the off-site source material locations must meet a different quality standard (as stated in Section 3.1 Performance Objectives) than residential properties, in addition to there being is no specific excavation depth associated with it, the off-site source material excavated quantity must be tracked separately. The RD design specification for the repository is calculated in cubic yards, therefore it is the Contractor's responsibility to determine the cubic yard quantity of off-site source material excavated, transported and consolidated at the repository. Options available to accomplish such measurement includes contracting with a State of Missouri-licensed surveyor to provide for a pre- and post-excavation survey *or* provide for weighing the material by truckload using a scale that meets all requirements provided in the Missouri Code of State Regulations, Title 2, Code 90. There is currently a certifiable, private party-owned scale on-site. Should the option to utilize the on-site scale be chosen, such terms of use must be negotiated between the Contractor and the private party at the Contractor's expense. For the purpose of conversion if a scale is to be used by the Contractor, the standard of 1.4 tons of soil/sediment weight per 1 cubic yard volume of material will be used.

Per the Site Specific HASP, the Contractor shall establish "work zones" at all work locations with highly visible caution tape or impassible construction fence (or other barrier). In non-working areas, the Contractor shall ensure the safety of the public and residents from hazards such as slip, trip and fall hazards at all times while the Contractor is active and present at each site. The Contractor shall ensure safe access for all residents to and from their houses throughout the remedial process. The Contractor shall be held responsible for any contaminated material leaving the work zone of each respective site.

The Contractor shall perform excavation around trees, bushes and shrubs to be left in-place in a manner that leaves, to the extent possible, the entire root/bulbs intact and avoids damage to the roots. Hand digging is recommended by EPA to prevent damage or disturbance to tree and other plantings root systems to establish a minimum excavation depth of 6" in the root zone location. If the Contractor modifies the property (e.g., dismantles the fence), damages the property (e.g., leaves ruts in the driveway, hits trees or other objects with excavator, etc.), the Contractor shall restore the area to its prior state or reach a settlement with the homeowner at no cost to the EPA. The Contractor, in the event of a settlement, shall use a settlement form which will be provided by the Contractor to the property owner with any and all agreements established between the Contractor and the property, not the EPA. An example is included in Enclosure K.

The Contractor shall avoid swinging machinery buckets over property lines and over uncontaminated areas (outside the work zone). If no options exist, the Contractor shall obtain written access from any affected property owner(s) prior to the work, expand the work zone to include the additional area and protect the uncontaminated property (plastic sheeting or other barrier).

Contractor is responsible for all costs, repairs and replacement resulting from any damage to known or unknown buried structures and overhead utilities at residential properties and the repository due to Contractor negligence. If unexpected utilities are encountered during excavation, the Contractor shall thoroughly document each instance and include the incident in the Bi-Monthly Report. If the Contractor damages unexpected utilities, the Contractor shall be responsible for repair and replacement of the lost service. Repairs to utilities must be made by a contractor who is a professional in the field of the utility damaged (electrical, plumbing, etc.), licensed as necessary to install, modify or repair such utility as required by local city, county or state jurisdictions, and performed at the expense of the Contractor.

The Contractor shall continuously employ dust suppression methods as needed at all work locations including haul routes. Uncontrolled dust issues along Madison County Road 200 during previous construction activities has not only resulted in numerous resident complaints, but also a reduced speed limit from Business Hwy 67 to the repository (20 mph) which shall be strictly adhered. Dust suppression must be maintained on all haul roads and in all work locations in and outside the project area. A detailed description of dust suppression methods shall be included in the individual Transportation Plans for the county, city and community governments per the OU3 PWS in addition to the Project Management Plan delivered by the Contractor.

The Contractor shall be available to respond to time-critical issues at properties in which the actions of the Contractor have caused issues, including but not limited to, flooding inside a home, clogged sewage system, access issues due to equipment blocking ingress/egress pathways, etc. During the course of the contract, the Contractor shall respond to such issues immediately as they arise or as reported by a homeowner or tenant, including holidays, nights and weekends.

Garden areas – In general, the Contractor shall excavate soil in vegetable garden areas in 12-inch lifts until the average lead concentration is below 400 mg/kg or the base of excavation is 24-inches bgs, whichever comes first. If the composite soil sample (collected in the manner previously described) from 24 inches bgs contains a lead concentration of 1,200 mg/kg or greater, the Contractor shall cease excavation at 24 inches bgs and place an approved visual warning barrier in the base of the garden excavation. Prior to backfilling, the Contractor shall document the location and dimensions of any contaminated material left in place and record the location and dimensions of the barrier placed at depth on the post-excavation site sketch. Requests by property owners to move garden areas shall be forwarded to the EPA.

<u>Driveways and garage interiors</u> – The Contractor shall excavate gravel driveways in the same manner as soil. On occasion, garages may have contaminated gravel or dirt floors that require hand excavation and placement of gravel. Heavy machinery may be used in garage interiors if approved by the EPA and the property owner in advance. If after approval the Contractor chooses to use machinery in these areas, the Contractor assumes all responsibility for damage caused by the Contractor's actions. Gravel specifications for the inside of garages are the same as driveway specifications (see Task 10). Upon consultation and approval by the EPA and property owner, the Contractor may remove asphalt/concrete driveways which have deteriorated beyond repair or that have been damaged by the remedial actions and replace the driveway with gravel.

Please note: The EPA does not have the authority to improve an individual's property. It is critical that the Contractor communicate this to the property owner during the pre-excavation site walk. Maintained, paved driveways are considered impermeable and encapsulating of any mine waste they may cover. The EPA does not intend to replace maintained, paved driveways. Should the Contractor damage repairable asphalt or concrete driveways, the Contractor shall be responsible for repair or replacement of the driveway with non-lead bearing material to the satisfaction of the homeowner at no cost to the EPA.

<u>Drip Zones</u> – A drip zone is an area around the painted (or previously painted) exterior walls of a house or structure that receives the majority of the rain runoff from the house or structure. Drip zones vary in size from structure to structure but generally should extend 30 inches beyond the foundation of the residence. Drip zones with contamination greater than 400 mg/kg at properties listed shall require excavation in the same manner as all other areas. The Contractor shall excavate the drip zones by hand to avoid damage to the house/structure by heavy equipment. Should the Contractor choose to use machinery around drip zone areas, the Contractor assumes all responsibility for damage caused by the Contractor's actions.

The depth of drip zone excavations shall be limited to a maximum of 12-inches bgs so that excavation does not jeopardize the structural integrity of the house foundation/footing. This determination will be made in the field on a case-by-case basis by the EPA based on each situation and the analytical data presented. The technique of tapering or angling away from the foundation after excavating several inches bgs is an acceptable practice around sensitive or unstable structures. If the level of contamination in the drip zone remains above 1,200 mg/kg at 12-inches bgs, placement of an approved visual warning barrier shall be required. The Contractor shall document the location and dimensions of any contaminated material left in place and record the location and dimensions of the barrier placed at depth on the post-excavation site sketch prior to backfilling.

<u>Potential for naturally occurring lead</u> – Naturally occurring lead ores could be found at the bedrock interface and in undisturbed clay soil near the surface of some properties. Another indicator of the presence of naturally occurring lead ores could be a high density of galena crystals in soil or unconsolidated rock in undisturbed soil. When these conditions are encountered, the Contractor shall contact the EPA immediately and cease excavating.

3.4.3 Final Determination of the Square-Footage of Excavation and Volume Excavated

For residential properties, the contractor shall complete a post-excavation, as-built sketch for the property excavated to determine the final square footage of the remediation zone for payment purposes *prior to backfilling*. The post excavation, as-built sketch may be based on the original field sheet <u>if</u> the original sketch of the property is a scaled drawing. If the original site sketch is not a scaled drawing (as many older field sheets are not), the Contractor will measure and complete a scaled, post-excavation as-built sketch. The as-built shall include the full calculation determining the final square footage of soil remediated and will distinguish between the Horizon 1 and Horizon 2 areas within the property boundary for billing purposes. The final as-built sketch will also include any features or changes to the property that were not included in the original field sheet. Please refer to Task 16 - Property Folder Submission for additional documentation requirements.

For the repository construction, excavation of sediment, floodplains and county road right of way, the Contractor shall verify the volume of material excavated by either hiring a Missouri licensed, third party surveyor or by weighing the material. There is an on-site scale owned by a private party which may be available for use; terms for use must be negotiated between the Contractor and the private party.

3.4.4 Task 9 – Transportation and Disposal and Consolidation

The Contractor shall use trucks covered with tarps so that no contaminated material blows out of the truck during transport. The Contractor shall fill trucks to capacity (or to within acceptable limits for the route selected) with contaminated material prior to hauling to the repository. Trucks hauling contaminated material shall proceed directly to the repository to off-load on the established routes and should not deviate from these routes. Activities prohibited with trucks loaded while hauling contaminated material

include, but are not limited to, stopping for lunch, running errands, and other non-emergency or non-essential contract activities.

Soils will initially be disposed of at the Conrad Repository but due to its limited storage capacity, the maximum amount of residential soil allowed for disposal at the Conrad Repository is approximately 44,000 cubic yards. A new repository will be developed as part of this contract near the start of the response actions under this contract in a location within three miles of the Fredericktown Corporate City Limits. The new repository will be utilized at such time the cubic yard limit for the Conrad Repository is met or approximately one year after the start of construction, whichever comes first. The new repository will be within the same approximate distance of the Fredericktown City Limits as the Conrad repository.

The Contractor and any sub-contractor's personnel, including all truck drivers, shall drive responsibly. This includes, but is not limited to, obeying all traffic and transportation laws, yielding to pedestrians, driving in a manner such that the trucks do not lose contaminated material and driving trucks within the acceptable weight restrictions for both the trucks and roads. A maximum speed limit of 20 MPH, although not posted, shall be strictly followed on Madison County Road 200 to the Conrad repository as a result of prior dust and neighborhood disturbance complaints and issues.

The Contractor shall be responsible for hauling and off-loading excavated, contaminated soil at the site repositories. The Conrad repository is shown in Enclosure L, and the proposed repository is shown as located in Enclosure M. The EPA and its contractors are authorized to treat, store and dispose of remediation waste at the soil repositories. Physical access to the repositories shall be maintained by the Contractor. At a minimum, this shall consist of maintaining the entrance gate(s) and any fencing which totally restricts unauthorized and/or off-duty access to the soil repositories, as well as maintenance of the roadways within the repository and at the entrances/exits. A truck washing station will be required at the soil repositories to allow continued operation during non-ideal conditions. Trucks shall not be allowed to operate if evidence of cross contamination and/or tracking contaminated soil or tailings out (i.e. track-out) exists.

Only contaminated residential soil which includes chat and the on- and off-site source material described in this PWS and supporting documents shall be disposed of at the soil repositories. The Contractor shall not dispose of any other solid or hazardous waste/substance at the repositories including debris from residential properties. The Contractor shall not allow any of his/her subcontractors or vendors to dispose of any other solid or hazardous waste/substance or debris at the soil repositories.

The Contractor shall commit trucks and equipment to either the contaminated part of the operation (i.e., transport and disposal of contaminated soil/gravel) or the backfill part of the operation (i.e., hauling clean backfill, topsoil, and gravel to residential properties) and ensure no cross-contamination occurs. In select cases and only when the on-site EPA Representative provides prior approval, the Contractor may switch a truck or equipment from handling contaminated material to handling clean material. The Contractor shall decontaminate the trucks by a wet wash at a designated soil repository so no visual evidence of material is present and ensure that no contamination leaves the pile. The Contractor will document the decontamination procedures used and photograph the truck or equipment before and after decontamination. The Contractor shall wet wash and decontaminate all other equipment when switching from contaminated soil/gravel work to clean work. Equipment transferred between contaminated sites can be decontaminated by dry wash (brushing, scrubbing) prior to being removed from the Site by the Contractor, if site conditions allow. The Contractor shall be held responsible for tracking material out of the established work zone due to improper decontamination of equipment. The Contractor is responsible for managing any waste generated by the decontamination in a manner consistent with local, state, and federal regulations as well as the site-specific HASP.

The Contractor shall use and maintain the designated entrance/exit roads at the Soil Repository. This may include periodic upgrading, such as improving road stability with rock. The Contractor shall be responsible for maintaining the sections of road specified and submitting a signed pre-excavation transportation agreement with Madison County and/or the local municipalities (see Task 5). The roads specified in the pre-excavation agreement must be repaired to a condition similar to the road's condition prior to commencement of this contract and as documented by Contractor photos/video taken prior to initiation of work. The pre-excavation transportation agreements must be signed by the respective county commissioners, city/community administrators, and the contractor. The agreement must be submitted to the EPA before excavation begins. Photographic evidence and any other documents generated during this activity shall also be provided to the EPA within one week of the collection of such documentation. Evaluation of road damage from pre-project to post-project asphalt road surface conditions should be based on the *PASER*, *Asphalt Roads Manual* (WTIC, 2002). For more information, please visit: http://epdfiles.engr.wisc.edu/pdf web files/tic/manuals/Asphalt-PASER 02.pdf

The Contractor shall not dispose of any excavated residential soil or on- or off-site source material at any location other than an approved repository. The source materials shall be placed in such a manner to allow compaction or settlement prior to capping. Compaction must meet all technical requirements provided in the RD plans and specifications.

The Contractor shall not exacerbate contamination at residential properties, on roadways, or at the Soil Repository. For example, when wet site conditions exist, the Contractor shall prevent mud from being tracked off residential properties and onto roads. Typically, work stoppage is the measure that has been implemented to address these conditions. **NOTE: Dry decontamination of equipment is not possible in wet and muddy conditions.** The EPA has the authority to stop truck traffic at the worksite or soil repositories due to mud tracking onto any roads. The Contractor shall eliminate any mud, soil, or mine waste tracking onto roads prior to resuming work. **Excavation of areas possessing contamination as a result of tracking at a residential property due to wet and muddy conditions will not be credited toward the total square footage remediated for that property.**

The Contractor shall immediately address any spillage of soil by physically removing and properly disposing of such spillage associated with the use of trucks and/or heavy equipment. Water or other rinsing agents shall not be used to aid in the removal of spilled material. Areas where spilled material is removed will be swept clean prior to departure. The Contractor shall ensure that roadways, alleys, and other public access areas are not "tracked" with soil or mine waste from the excavation or Soil Repository areas. The Contractor shall cover all trucks hauling soil during all transport time on roadways. The Contractor shall manage excavations such that trucks can load on undisturbed ground. Trucks hauling clean backfill shall operate in clean areas only and shall not back into lead-contaminated material; otherwise, thorough decontamination will be required.

Consolidation of Residential Soils and Source Material

Consolidation of residential soils and source material will be conducted concurrently during the construction performance period. The EPA recommends that the Contractor place these materials in locations at the repository in a manner that accommodates grading to meet the RD contour elevations and slope.

3.4.5 Task 10 - Backfill Quality and Grading

The Contractor shall be responsible for locating and sampling suitable backfill sources. The EPA advises the Contractor to consult the Missouri Inventory of Mining Occurrences and Prospects Database which can be found at the Missouri Spatial Data Information Service (http://msdis.missouri.edu/) to help guide

in the selection of a backfill source. Many sources of information exist on the history of mining in southeast Missouri, one of which can be found at http://pubs.usgs.gov/sir/2008/5140/pdf/Chapter1.pdf. The Contractor shall provide the EPA access to all potential and accepted backfill sources. The Contractor shall follow storm water protection regulations with regard to the backfill sources. Backfill sources and sampling methods shall be included in the QAPP for approval by the EPA prior to using the backfill. Site sketches of the backfill source area with GPS reference points are required. Physical markers and GPS located points detailing sample areas at the backfill source area are also a requirement (see section 3.6.1).

All excavations and shall be backfilled with non-contaminated soil, topsoil, and gravel that exhibit at least the following characteristics:

- 1. Contains less than 100 mg/kg* average lead;
- 2. Contains less than 22 mg/kg average arsenic;
- 3. Contains less than 25 mg/kg average cadmium;
- 4. Contains less than 1,800 mg/kg average manganese;
- 5. Contains no other contaminants at concentrations that pose a risk to human health and the environment (i.e., below residential soil screening levels found at the following web address: http://www.epa.gov/region9/superfund/prg/);
- 6. Topsoil shall be demonstrated to be of sufficient quality to produce heavy growths of grass and sustain vegetable gardens as verified by appropriate soil nutrient testing*. (For more information see http://soilplantlab.missouri.edu/ and ASTM D5268 07 Standard Specification for Topsoil Used for Landscaping Purposes.) Depending on the backfill source chosen by the Contractor and the results of the nutrient testing, the Contractor shall fertilize the topsoil upon placing it at a residential property according to the recommendations of the nutrient test. Nutrient testing results and fertilizer/lime recommendations must be submitted to the EPA and approved prior to use;
- 7. Contains insignificant amounts of debris (tree roots, rocks, grass, etc.).
- * For the repository cap, the soil borrowed from the dam excavation shall meet the same soil requirement with the exception that soil contains a concentration that does not exceed 120 mg/kg average lead (as opposed to 100 mg/kg). The MDNR has pre-qualified subsoil at the designed location of the dam and does not require testing for nutrients. This soil, however, must be sampled to verify the quality with respect to the excepted lead concentration in addition to the other constituents required for qualifying the residential soil. Soil enhancement may be necessary to promote vegetative growth if the growth of the vegetative cover cannot be successfully established.

The EPA will not accept backfill or topsoil at either the residential properties or for use on the cap that does not meet these requirements. The EPA will not accept or pay for work accomplished using backfill or topsoil that does not meet these requirements. If unacceptable quality soils are used, the Contractor will be required to provide for a remedy at their own expense. The Contractor shall not use subsoil (even with compost or other amendments added) as topsoil on residential properties. A minimum of four inches of topsoil is required for all areas excavated at residential properties; all garden areas require the use of topsoil to the full depth of the excavation. For more information, please refer to the Quality Assurance Surveillance Plan (QASP).

The Contractor shall ensure all equipment used to haul clean material is free of contaminated material. The EPA shall have access and authority at any time to inspect or sample trucks used for hauling clean backfill (soil, gravel, etc.) for lead contamination while the truck is performing the transport of clean backfill under this task.

The Contractor shall ensure adequate compaction of soil for use during this task without unacceptable future settlement. The Contractor shall not place backfill in excavations containing snow, ice, or standing water. The Contractor shall accomplish placement of backfill in a manner that will provide positive drainage away from all buildings. The Contractor shall not be responsible for correcting significant pre-existing drainage problems through extensive grading and backfilling. However, it is the Contractor's responsibility to sufficiently document pre-existing conditions; failure to do so could result in the Contractor being responsible for correcting drainage problems. Prior to re-vegetating or placing gravel, the surface of the backfill shall be visually inspected by the EPA on-site representative and the Contractor for gradation control. The final grade of soil should be brought to that of existing terrain or previously existing grade unless otherwise approved by the EPA and property owner. For tracking purposes the contractor shall either weigh backfilled trucks in the same manner as excavated material or record cubic yards of material by the truckload. Once the backfilled property is properly graded based on the inspection, the Contractor shall proceed with re-vegetation or gravel placement.

Replacement gravel for driveways, garage floors, walkways, parking areas and other previously graveled areas shall consist of two types of crushed limestone. For the sub-grade, the Contractor shall use 1.5-inch minus limestone rock from non-lead-bearing geological units. The Contractor shall then place a minimum of 1.5-inch top layer of 1.5-inch clean limestone rock on all areas that receive gravel. The Contractor shall compact the gravel so that it does not rut from automobile traffic or heavy rain events. The Contractor shall be responsible for maintaining the gravel driveway for a period of 120 days after backfill and compacting at each respective property. The final grade of gravel should be brought to that of existing terrain or previously existing grade unless otherwise approved by the EPA and property owner. The Contractor shall periodically demonstrate that the soil source and gravel contains less than 100 mg/kg lead for residential properties, and 120 mg/kg lead for capping soil. Samples shall be collected for every 2,500 cubic yards for residential soil, and every 5,000 cubic yards for the repository construction in a manner approved by the EPA in the QAPP. All sample collections shall be in compliance with the approved QAPP.

The Contractor shall be fully responsible for removal and replacement of any backfill material placed at residential properties and the repository or associated locations that is not in compliance with the backfill requirements listed above at no cost to the EPA.

With the exception of asphalt, the overall guiding principle for backfill is "like for like". In instances where the homeowner would prefer another material – for example, gravel in place of soil – the Contractor may choose, at no cost to the EPA, to make such replacements, but must follow the guidelines for agreements made with property owners under Section 3.3.3.

The Contractor shall be responsible for maintaining yards that have been backfilled and are awaiting seeding, including but not limited to, implementing best management practices (BMPs) for erosion control, weed control, etc. Temporary walkways to enable access from driveways to home entrances shall be provided while yards are excavated and awaiting backfill and/or lawn establishment. Sidewalks shall be kept free of dirt, mud and debris during the excavation and until/while lawns are being re-established. The Contractor shall employ BMPs until a property is fully restored as verified by a close-out inspection by the EPA and the property owner. The Contractor shall promptly repair and, if necessary, upgrade any breached or non-working erosion control measure. The Contractor shall remove all BMPs such as silt fence and straw bales after lawns have been established, as approved by the EPA.

The Contractor shall restore a property to final grade within 21 days after starting the excavation. Liquidated damages may be applied per contract terms if the property is not restored to final grade within 21 days of the start of the property excavation.

3.4.6 Task 11 - Dust Suppression

As applicable, the Contractor shall employ dust suppression during soil excavation, soil staging operations at residential properties, transportation of materials along Madison County Road 200 to the repository, at the repository, along repository entrances/exits, and during backfilling and grading activities to comply with the site specific HASP at all locations. Dust suppression shall meet all state, county or local regulations. Water for dust suppression shall be obtained from the local publicly owned treatment works unless otherwise approved by the EPA. The Contractor shall also ensure that dust is not a nuisance or problem when work is not occurring. The Contractor shall describe in the PMP and HASP situations when dust suppression activities will be conducted. The Contractor may apply alternative dust suppression activities, such as sealing gravel roads, upon approval by the county (if needed) and the EPA. The Contractor shall not allow visible dust emissions from contaminated residential work areas. In cases of excessive dust, as determined by the EPA, the EPA has the authority to stop activity at the worksite or Soil Repository until dust suppression measures are appropriately implemented.

3.4.7 Task 12 - Final Grading and Capping of Repository

Once all the contaminated on- and off-site source material is consolidated at the repository, graded and sloped, the Contractor shall provide for a pre-capping survey to insure the final grade and slope meets the design plans and specifications. Upon such determination and approved by the EPA, the Contractor shall construct the cap in accordance with the design plans and specifications. The clay cover and vegetative soil cap shall be constructed in such a manner to promote preferential runoff, prevent ponding water properly diverting upgradient precipitation runoff around the capped area. Material excavated as a result of lake construction has been pre-determined by the MDNR to be useable as both the semi-permeable clay fill and vegetative soil cover. However, the cap material shall comply with the RD specifications and the quality for standard backfill and topsoil as provided in the PWS with the exception that lead must not exceed 120 ppm lead (as opposed to residential backfill and topsoil of 100 ppm lead). A survey of the cap shall then be conducted to ensure the appropriate cap thickness has been placed.

Upon completion of the on and off site source material excavation and consolidation, the Contractor shall grade to ensure area to promote proper surface and terrace drainage and eliminate standing water.

Surveys

For the repository construction, a third party surveyor, licensed by the State of Missouri, shall be hired by the Contractor to determine: 1- Initial grade of the Conrad Tailings/repository; 2- material volumes of excavated material transported to the repository from downstream locations that includes overbank, floodplain and right-of-ways; 3- post grade elevation of the repository (after final consolidation) to insure proper construction grade and slope are met; 4- the capped repository to confirm that the required soil volume and placement meets the design requirement; 5- elevation survey after placement of cap to insure the proper amount of fill and topsoil meets the capping requirement and final grade and slope of the RD within 15 days of completion. A final survey will be conducted to confirm that the fill and topsoil meet the adequate cap thickness requirement as compared to the post-consolidation pre-capping survey. The post-consolidation, pre-capping survey may be used to determine the final volume of source material consolidated at the repository (if the option to utilize the on-site scale is not exercised to weigh soils and off-site mine waste source materials) since such consolidation of this material will logically be completed after the transport and disposal of residential soil is complete.

3.4.8 Task 13 – Landscaping and Vegetation

The Contractor shall ensure quality landscaping for each backfilled residential property and shall provide materials, equipment, and labor necessary such that restoration activities result in final ground surfaces that are smooth and allow for adequate drainage, and lawns that are adequately revegetated.

Sod placement shall be implemented in residential properties remediated for up to one-quarter acre with the permission of the landowner. The EPA may authorize placement of more than ¼ acre of sod under the following conditions:

- o Locations with a high risk of erosion;
- o In areas where evidence of pre-existing sod is present;
- o In areas with pre-existing zoysia grass
- o If the excavation area outside $\frac{1}{4}$ acre is less than 20% of the total excavation area.

Note: CO/COR approval is required prior to placement of more than ½ acre of sod at a property.

In properties requiring greater than one-quarter acre of revegetation, hydroseeding shall be performed in the remaining area by the Contractor in backfilled and disturbed areas at residential properties. Hydroseeding shall generally follow current business standards and practices. All materials and seed utilized shall be from a certified source. The Contractor shall hydroseed based on the following minimum standards per acre unless another standard is allowed in advance by the EPA:

Item	Rate/Acre
K31 Fescue	436 lbs
Annual Rye	44 lbs
Hydroseeding Mulch	4000 lbs

Fertilizer/lime shall be applied based on the backfill nutrient tests and the N-P-K ratio recommended for the specified seed mix. The Contractor shall provide lawn care guidance to each landowner. Some suggestions are located on the University of Missouri-Extension Website, located at http://extension.missouri.edu/main/DisplayCategory.aspx?C=64. The Contractor shall determine appropriate seeding and sod windows to meet growth requirements for property closeout. Recommendations can be found at http://extension.missouri.edu/main/DisplayCategory.aspx?C=64, but ultimately the contractor is responsible for determining when seeding and/or sodding is appropriate. The Contractor shall employ BMPs at residential properties to prevent erosion and maintain the backfill and seed. The Contractor shall replace and re-grade any lost backfill due to erosion prior to or during the revegetation period.

Alternate ground cover and seed mixes may be used in order to stabilize steep slopes where grass sod/ hydroseeding is impractical in establishing vegetation. Alternate ground cover and seed mixes will not be permitted unless approved in writing by the EPA and the property owner. If alternate ground cover is used, the Contractor shall also use approved erosion control measures.

For the repository after final grading, the Contractor shall revegetate disturbed areas with native, warm season grasses as specified by the EPA. Other vegetation may be used to accommodate the repository property owner(s) wishes, however any changes are subject to approval by the MDNR and EPA. The

Contractor shall contact the EPA if any alternate processes within the provisions of this PWS require implementation and again must receive prior approval before commencing revegetation from both the MDNR and EPA.

The Contractor shall be responsible for maintaining the revegetated lawns at residential properties and the repository for a period of 120 days after sodding/hydroseeding/revegetating has taken place. The EPA recommends that the Contractor write an agreement with each residential property owner detailing the care and maintenance requirements and expectations during the pre-excavation site walk. For more information on lawn establishment and care/maintenance, please refer to the following website: http://extension.missouri.edu/p/G6700. At a maximum of 30 days after sodding/hydroseeding, the Contractor shall inspect yards and the repository to observe and photo document the conditions of the revegetated areas at each respective property. The EPA will determine when the property is adequately revegetated based on a satisfactory cover of living grass and in which gaps larger than 9 square inches (3 inches by 3 inches) at residential properties do not occur. The Contractor shall revegetate yards where the EPA determines that revegetating is required.

Where zoysia grass has been removed for remedial activities, the Contractor shall replace the zoysia grass and be responsible for maintaining it for 120 days. It is unknown how many properties have zoysia grass. Unlike typical hydroseeding and sodding, the Contractor may elect to establish zoysia in the backfilled yard under a separate timeline. It is the contractor's responsibility to determine the most effective times to seed/sod properties to meet property closeout requirements within the provisions of this PWS. A reference on planting and maintaining zoysia grass is included on the University of Missouri-Extension website at: http://extension.missouri.edu/publications/DisplayPub.aspx?P=G6706.

Unless otherwise indicated by the landowner and approved by the on-site EPA Representative with a written agreement signed by the Contractor, landowner, and the EPA, the Contractor shall restore residential properties to pre-excavation conditions including landscaping. As stated previously, the guiding principle for replacement is "like for like". Therefore, in some instances, the Contractor shall replace or restore mulch, decorative rock, etc., at residential properties unless otherwise approved by the EPA and property owner in writing. If any approved pre-excavation agreement exists, the Contractor shall restore areas according to the pre-excavation agreement. All pre-excavation agreements must be obtained in writing and contain property owner signatures. Pre-excavation agreements must be included with the property file and available to the EPA upon request. Please note that pre-excavation agreements do not excuse the Contractor from their obligation in meeting all requirements of the PWS unless approved by the CO/COR in writing.

3.4.9 Task 14 - Replacement of Removed or Damaged Items

The Contractor shall not be required to replace items removed at the discretion of the property owner. Upon completion of the excavation, backfilling, and restoration, the Contractor shall be responsible for returning the property to pre-excavation conditions (e.g., re-installing fences, gates, swing sets, etc.) except for items removed by the property owner. If the items are not salvageable after remediation (e.g., broken fence posts, fences, etc.), the Contractor shall purchase comparable items acceptable to the property owner and reinstall these items. After completing restoration efforts, the Contractor shall notify the EPA within one day. The Contractor shall repair all Contractor-caused property damage and seed appropriate restored areas before remedial activities are considered complete and close-out activities can be performed.

3.4.10 Task 15 - Repair/Maintenance of Previously Remediated Properties

The contractor shall repair or maintain remediated properties from previous contracts with outstanding or newly discovered issues. These may include minor grading, seeding or overseeding, weed control and fertilizing, minor landscaping, or minor repairs to underground clay pipe or cable discovered after the expiration of the 120 day warranty period subsequent to contract expiration. No properties are currently identified, but the EPA reserves the right to assign these in the event new issues arise. In the unlikely event soil must be removed and vegetation replacement is necessary as a result of insufficient soil quality, the payment schedule for the soil removal CLINs will be applied.

3.5 Post-Excavation Activities

3.5.1 Task 16 – Final Property Closeout Inspection

The Contractor shall schedule and perform a final property closeout inspection with the property owner and the EPA to discuss completed tasks and, in general, assess all restoration actions within 10 working days of meeting the closeout criteria described below. For the repository, the Contractor will conduct a final inspection in conjunction with the MDNR and EPA. Following the post-restoration property site walk, the Contractor shall attempt to obtain the property owner's signature and date on the Final Property Closeout Form that acknowledges that all restoration work was completed appropriately and in accordance with this PWS. On occasion, the Contractor may be required to show the property owner the dated pre-excavation video and/or photographs to resolve any issues. During the final inspection, the Contractor shall conduct the following activities:

- 1. Inspect the completed remedial effort and ensure that it meets the Final Property Closeout form criteria (see Enclosure I) and all provisions of the RD.
- 2. Take sufficient dated photographic and video evidence of the completed property and the access location from the street to the property for a thorough comparison with the pre-excavation photographic/video evidence.
- 3. Obtain the landowner's signature on the Final Property Closeout Form (example form included in Enclosure I) where the landowner acknowledges that all restoration activities were adequately complete and no damage was evident.
- 4. Obtain the EPA's approval of the Contractor's property closeout request and signature on the Final Property Closeout Form after verification that performance standards have been met.

If the EPA determines that property conditions warrant additional work to be performed, the property closeout request will not be approved until the Contractor has performed the work, at which point the EPA, after conducting another inspection and finding all performance standards are met, will approve the property closeout request by signing the Final Property Closeout Form. The Contractor shall attach the pre- and post-excavation site sketches to the signed Final Property Closeout Form and submit the original and one copy of the signed form to the EPA. The Contractor shall keep a copy of all signed Final Property Closeout Forms and other property documents on site during the contract period. A completed Property Closeout Form does not exempt the Contractor from honoring the 120 day warranty period. Any issues arising within the warranty period attributed to the remedial work performed, *regardless of prior signed Property Closeout Reports*, remains the responsibility of the Contractor.

Once Final Property Closeout is achieved and the 120 day warranty period has passed, the Contractor shall take dated videos and photographs of the condition of the private, city, and county roads used as haul routes by the Contractor during the construction activities. If there are several properties within an area where the Contractor performs remedial activities more or less concurrently, the Contractor may wait to document the road conditions until the final property in the area is completed or before the winter season, whichever occurs first. Records of the haul roads shall not be placed in individual property

folders, but shall be maintained as separate documents. An Excel spreadsheet shall be maintained to correlate the video documentation to specific roads. If, after the remediation, the post-excavation photographic and/or video evidence of the roads is insufficient to make a determination of fault should accusations be made by the property owner, city/municipality or county, the Contractor shall repair the roads per the pre-excavation agreement with the county and city/municipalities at the Contractor's cost. Rating comparisons per the evaluation criteria using the *PASER*, *Asphalt Roads Manual* (WTIC, 2002) should be assigned where any damage is documented to have occurred or is alleged.

3.5.2 Task 17 - Property Owner Satisfaction Survey

Property owner satisfaction is a key objective; therefore, the EPA will request that property owners complete a short Property Owner Satisfaction Survey. This survey captures the level of property-owner satisfaction achieved after all remedial actions are completed. The survey shall be provided to property owners by the Contractor during the closeout site walk or may be left with the homeowner along with a stamped envelope addressed to the EPA Region 7 Office. The homeowner may complete the survey during the closeout site walk if the EPA is present or they can mail it in at their convenience. The survey results will be compiled at the end of each contract year and will be used, along with the EPA COR's Contractor Performance Evaluation, to determine the eligibility for incentive payment. (For more information, please see the QASP). The Survey is attached as Enclosure J. The EPA COR's Contractor Performance Evaluation will consider the timeliness of punch list resolution, business relations, complaint resolution, and the overall quality of work including random phone calls (complaints) received by the Public Information Centers and the Regional Office. The EPA will evaluate the Contractor's performance based on the performance standards listed in the QASP.

The Contractor will receive and retain a copy of the completed and returned surveys/performance evaluations. Property Owner Satisfaction Survey forms for at least 75% of all properties closed-out during the contract period must be received by the EPA in order for the EPA to initiate evaluation to award a financial incentive and for the Contractor to be eligible for any financial incentive that could be awarded. The EPA may contact property owners who fail to submit surveys for an explanation of why the survey was not submitted.

3.5.3 Task 18 - Property Folder Submission

The Contractor shall submit property folders within ten business days of property closeout. Applicable documentation for each closed-out routine and non-routine property assignment shall be submitted in a property file.

At a minimum, each property file shall contain the following in this order:

- 1. **Transmittal Checklist** identifying each document in each individual property file by its accurate name and by its chronological order in the file, signed and dated by the Contractor's representative. This form shall include a signature block with space for the date of review by the COR or an EPA representative.
- 2. **Brief Executive Summary** Two to three paragraphs describing the general work completed, problems/issues encountered during the excavation, backfill or the final property close-out inspection including property owner concerns, unique findings that the EPA should be aware of, and any other relevant information concerning the particular property.
- 3. **Signed Access Agreements** for the property being remediated including any access agreements obtained (required) for crossing onto adjacent properties.

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- 4. **Site Sketch** (pre-excavation drawing of the property) provided by the EPA pursuant to contract specifications.
- **5. Property Pre-Excavation Inspection Checklist** (Enclosure D) signed by the property owner and the Contractor's representative responsible for pre-excavation site walks (**Item a.** below to be included, as necessary, here).
- 6. **Pre-Excavation Photographs and Video** including photographs in Joint Photographic Experts Group (JPEG) format and digital video clips in Moving Picture Experts Group (MPEG) or Windows Media Video (WMV) format on a Digital Video Disk (DVD). (Note: other video/photo formats may be accepted with prior written approval from the COR.)
- 7. **Utility Clearances** including any documentation verifying all attempts to locate utilities.
- 8. **Post-Excavation Photographs and Video** taken immediately after excavation activities are complete in JPEG format and digital video clips in MPEG or WMV format on a DVD.
- 9. As-Built Site Sketch (Post Excavation Site Sketch) which provides all information on the original property site sketch provided by the EPA (with the exception of the original sampling results) and includes: a legend, Contractor identification, date, final confirmation lead levels, final square footage and depth of area excavated (under Task 8 3.4.3), results of any additional characterization sampling performed, and areas exceeding cleanup criteria not remediated (Item b. below to be included, as necessary, here). Areas where demarcation barriers are placed on the property must be clearly identified. As built sketch must be drawn to scale to determine the area remediated by the Contractor and confirmed by the EPA. Payment in square footage will be based on the excavation final dimensions and the horizons encountered.
- 10. **Sampling and Confirmation Data** of all sampling data collected from the property including insitu XRF readings and confirmation/verification sampling data/results. (This form will be provided for insertion by the EPA and/or the ETS.)
- 11. **Property Totals Report** which will include a table with the square footage, depth and estimated number of tons/cubic yards of contaminated material removed from the property; the number of tons/cubic yards of each type (gravel, soil, etc.) of excavated material at the property; and the amount of each type of backfill material (in cubic yards) used at each property.
- 12. **Final Photographs and Video** of the property taken after seeding to verify that the grass is growing, healthy, and adequately covers the ground as per closeout requirements, in JPEG format and digital video clips in MPEG or WMV format on a DVD.
- 13. **Final Property Closeout Form** (Enclosure I) signed by the property owner.

Other documents that will be included in the individual property file, as needed or obtained, include but are not limited to:

- a. **Pre-Excavation Agreement Forms** (Enclosure E) describe any agreements regarding excavation and restoration at the property made during the Pre-Excavation Site Walk between the property owner and the Contractor. This form will be signed by both the Contractor's representative and the property owner. This form will accompany the Property Home Inspection Checklist above.
- b. **Areas Not Addressed Summary** describing portions of the property and circumstances where soils exceeding cleanup criteria were not remediated. This summary should accompany the AsBuilt Site Sketch described in item 9 above and clearly identify such locations.
- c. **Property Owner Issues Forms** (Enclosure H) signed by the Contractor's representative(s) who handled the issue(s).
- d. **Property Owner Repair Acceptance** documents signed by both the Contractor's representative and the property owner **showing follow-up actions** regarding repairs to damages made (e.g., concrete sidewalks, etc.) and/or replacement of items removed (e.g., shrubs and plants) is acceptable to the property owner. This document will accompany the Property Owner Complaint Forms above.

- e. **Property Owner Satisfaction Form** (see Enclosure J)
- f. **Property Owner Settlement Form** (see Enclosure K)

3.5.4 Task 19 – Final Report

The Contractor shall submit a Draft Final Report each contract year within 30 days after completion of field activities. The report shall describe all work completed under this contract to date as well as any issues of which the EPA should be aware. The report shall address all aspects of the work conducted and shall include a table or spreadsheet that shows the properties where work has been completed, the EPA ID number for each property and the dates of tasks started and completed. The Draft Final Report shall also include property files for all properties not previously submitted. The Final Report, with attachments, shall be submitted to the EPA within 20 days after receipt of the EPA's comments on the Draft Final Report.

3.6 Sample Collection Procedures

3.6.1 Composite Samples for Backfill

Each composite sample of the excavation base soil (to determine adequate excavation depth), backfill soil or gravel shall be collected and analyzed for the metals and other characteristics listed in Section 3.4.4 Task 10 Backfill Quality and Grading. These samples will be submitted to a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for analysis of metals in accordance with the Contractor-developed QAPP. The laboratory readings shall be stored electronically and included in electronic format along with a hard copy (from the lab) in the appropriate reports, including the Bi-Monthly Report and the Final Report. A scaled map must be included with the analytical results showing the GPS located extent of the borrow area as well as the GPS coordinates for each sample collected. If multiple backfill sources are used, the Contractor must track which backfill sources were used at each residential property.

3.7 Community Involvement and Communication

The Contractor has primary responsibility for addressing problems and complaints submitted by property owners and the general community within the scope of this PWS. The PMP shall identify the Contractor's points of contact and responsibilities and describe how complaints or issues shall be handled. The Contractor shall direct all other inquiries/concerns from state and local regulatory agencies to the EPA. The Contractor shall coordinate all field activities with city, county and state officials prior to performing work.

The Contractor shall inform the EPA, to the extent possible, in advance of any media contact and in all cases shall inform the EPA immediately following any media contact. The Contractor should refer all media matters to the EPA and defer comments until such a time as the EPA can be made available for commenting.

4 DELIVERABLES

The Contractor shall submit the following deliverables in accordance with the schedule identified for each deliverable. EPA approval of all plans is required prior to initiating on-site work.

• **Final Project Management Plan** – two hardcopies and one electronic copy due to the EPA PM within 15 days of receipt of EPA comments on the draft. This site-specific plan gives a

description of how the project will be managed. This includes, but is not limited to, the approach used, and identifies: Key personnel; the general schedule, including the timeline and number of properties the contractor expects to complete in monthly intervals; the resources required; the intended communication process with the EPA; the Contractor's points of contact and responsibilities; a description of how property owner complaints or issues will be handled; how the Contractor shall interact with the respective road authority and maintain the roads; and when and how the Contractor shall employ dust suppression measures. The PMP shall also describe the protocols and methods that will be employed to ensure quality landscaping and establishment of lawn growth. If the Contractor plans to attempt gaining the local hiring and material purchase incentive identified in the QASP, a plan shall be included in the PMP describing the proposed hiring strategy and how local subcontractor/services/laborers will be utilized through the duration of the contract. The EPA's approval of the plan must be received by the Contractor before the start of field activities.

Note: The PMP is reviewed by the EPA only to ensure it meets the requirements of the contract and PWS. The PMP is a dynamic document that can be updated as needed to reflect actual site conditions.

- **PMP Updates** due to the EPA PM within 10 calendar days of changes. The Contractor shall update the PMP to reflect progress towards achievement of the performance objectives as necessary. The Contractor shall submit two hard copies and one electronic copy of PMP updates to the EPA.
- Final Health, Safety and Emergency Response Plan two hard copies and one electronic copy due to the EPA PM within 15 days of receipt of EPA comments on the draft. This plan outlines the health and safety requirements of the federal, state, and local laws and regulations, and must meet the minimum requirements of OSHA 29 CFR 1910.120 and 29 CFR 1926.65. For specific information please consult the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) "A Fact Sheet for Hazardous Waste Operations and Emergency Response", located at: http://www.osha.gov/OshDoc/data General Facts/factsheet-hazardouswaste.pdf.
- Quality Management Plan two hard copies and one electronic copy due to the EPA PM within 15 days of receipt of EPA comments on the draft. The QMP documents how an organization will plan, implement, and assess the effectiveness of its quality assurance and quality control operations. Specifically, it describes how an organization structures its quality system; the quality policies and procedures; areas of application; and roles, responsibilities and authorities. The elements of a quality system are documented in a QMP. The final QMP shall include the Contractor's approach to provide reproducible data from XRF screening and confirmation sampling. The plan shall be in accordance with the <u>EPA requirements for Quality Assurance Project Plans, EPA QA/R-5 (March 2001)</u>.
- **Final Quality Assurance Project Plan** two hard copies and one electronic copy due to the EPA PM within 15 days of receipt of EPA comments on the draft. This site-specific plan shall describe how the Contractor will assure the quality of all work and products including, but not limited to, backfill source sampling and gravel sampling. The plan shall follow the <u>EPA Requirements for Quality Assurance Project Plans</u>, EPA QA/R-5, March 2001.
- **Final Storm Water Pollution Prevention Plan (SWPPP)** two hard copies and one electronic copy due to the EPA PM within 15 days of receipt of EPA comments on the draft. This plan

outlines how the Contractor and its subcontractor(s) shall meet the storm water pollution prevention and management requirements of the federal, state and local laws, regulations, and other requirements, including the Clean Water Act, for both the residential properties, backfill/topsoil source locations and the designated repositories. In general, a SWPPP is a site-specific, written document that identifies potential sources of storm water pollution at the construction site (residential properties, backfill source areas, and the Soil Repository) and describes BMPs (Best Management Practices) to contain pollutants (sediment, soil, tailings, etc.) in storm water discharges from the residential properties, backfill source area(s), and the Soil Repository. The SWPPP shall also document how the Contractor plans to ensure no tracking of material onto any road from residential properties and the Soil Repository. Two websites for guidance on storm water pollution prevention, management, and SWPPPs are

- http://www.epa.gov/npdes/pubs/sw_swppp_guide.pdf
- http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000469L.txt

The final SWPPP must be received by the EPA prior to the Contractor starting field activities.

- **SWPPP Updates** due to the EPA PM within 10 business days of EPA notification indicating that the SWPPP requires updating. The Contractor shall update the SWPPP to reflect changes when the on-site EPA Representative determines it is needed. This will most likely be the result of a site inspection indicating that BMPs are ineffective or are not adequately maintained. The Contractor shall submit two hard copies and one electronic copy of the SWPPP update to the EPA.
- **Bi-Monthly Report** The Contractor shall submit Bi-Monthly Reports electronically to the PM and CORs on the contract. The Bi-Monthly Report shall also be provided as a hard copy during the Bi-Monthly Meeting with the COR. At a minimum, this report shall identify the bi-monthly and cumulative number of properties excavated, backfilled, restored, and signed-off by the property owners. It shall also include the number of truckloads/cubic yards of contaminated material removed from each property that period, the estimated cubic yards of each type (gravel, soil, etc.) of excavated material at each property, and the amount of each type of backfill material (estimated in cubic yards) used at each property. The report shall also provide bi-monthly and cumulative totals for the number of properties closed out (after successful final inspection by the EPA). The report shall identify the estimated amount of contaminated soil and gravel in cubic yards taken to the Soil Repository cumulatively both by year and over the life of the contract. The report shall document problems encountered and resolved, media contacts, property owner complaints (form in Enclosure H), unique findings of which the EPA should be made aware, and other relevant information. The report shall identify all roads used during the reporting period by trucks going to and from the Soil Repository. The report shall also include the number of employees in each category of work (i.e., equipment operator, truck driver, laborer, foreman, etc.) during the reporting period. The Bi-Monthly Report shall consist of the work scheduled two weeks in advance of the current operations. The detailed plans shall include a list of upcoming yards to be opened, excavated and restored (those in which final grade has been achieved, seeded, etc.), and if there are any anticipated issues that may be encountered in the upcoming reporting period. The report will also identify all work performed at the repository, included but not limited maintenance of soils transported and any pre-excavation, excavation or post-excavation construction completed. The bi-monthly reports shall be submitted to the EPA PM and CORs before noon on the 1st and 3rd Mondays of every month from the EPA approval date of the PMP. Property folders shall be submitted along with the bi-monthly reports.

- **Draft Remedial Action Report** (combined)— This report shall document all work completed at the site including the properties assigned and properties remediated including the repository; volume of materials excavated, disposed of and at the Site; the volume of backfill and topsoil used at each residential property and the repository construction; the exact location of the disposal boundaries; documentation that the cleanup criteria were achieved throughout the entire site; total billable costs expended under the contract; and as built drawings documenting the final contour elevation of the finished ground surface. This report shall be submitted to the EPA no later than 30 days after completion of all tasks associated with this contract in both electronic and hard copy format.
- **Final Residential Cleanup Report** The Contractor shall submit the Final Residential Cleanup Report as described in Section 3.5.4 as an individual report broken out of the Draft Remedial Action Report as an individual report for OU3. Two hard copies and two electronic copies of this report are due to the EPA PM within 20 days of receipt of EPA comments on the draft.
- **Final Repository Construction Report** The Contractor shall submit the Final Repository Construction Report withing 20 days of receipt of EPA comments on Draft Remedial Action Report. This report shall be broken out from draft and submitted as an individual report for OU4.
- **Justification for Receipt of Incentive Awards** This report provides all necessary documentation to support the award of contract incentives. The Contractor shall submit this report to the EPA PM within 45 days after completion of field work each contract year.
- **Residential Cleanup Property Folders** These folders contain all items listed in Section 3.5.3 for each property. The contractor shall provide all property folders within 10 days of property closeout activities for review by the EPA. Any activities taking place after property closeout but within the 120 warranty period will be submitted as an addendum to each respective property folder.
- Final Borrow Area Excavation and Restoration Plan This plan shall detail all restorations plans activities in conformance with accepted SWPP management practices, regardless of whether the Contractor managed the borrow area or if a sub-contractor managed the borrow area. This plan shall be submitted to the EPA within 15 days of notice to proceed with contract. The Contractor shall submit two (2) hard copies and two (2) electronic copies.

5 REFERENCES

WTIC, 2002. Wisconsin Transportation Information Center. *Pavement Surface Evaluation and Rating, PASER, Asphalt Roads Manual.*

USDA, 1998. U.S. Department of Agriculture, Natural Resources Conservation Service. *Estimating Soil Moisture by Feel and Appearance*. Program Aid Number 1619, April 1998.

US EPA, 2013. U.S. Environmental Protection Agency Regions 9. (accessed February 19, 2014). *Regional Screening Levels for Chemical Contaminants*. http://www.epa.gov/region9/superfund/prg/

US EPA, 2011a. U.S. Environmental Protection Agency, Region 7. Record of Decision, OU3-Residential Properties Madison County Mines Superfund Site, Madison County, Missouri. September 2014.

US EPA, 2003. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Lead Sites Workgroup, *Superfund Lead-Contaminated Residential Sites Handbook*. OSWER 9285.7-50. August 2003.

6 ENCLOSURES

ENCLOSURE A

LIST OF PROPERTIES SUBJECT TO REMEDIATION

Please note: Property list is included as an attachment to the Solicitation

ENCLOSURE B

KEY TERMS

Administrative Record (AR): All documents which the EPA considers or relies upon in selecting the response action at a Superfund site, culminating in the Record of Decision for remedial action.

Bioavailability: A risk assessment term; the fraction of an ingested dose that crosses the gastrointestinal epithelium in the stomach and becomes available for distribution to internal target tissues and organs.

Blood lead level or concentration: The concentration of lead in the blood, measured in micrograms of lead per deciliter of blood ($\mu g/dL$).

Chat: Sand to gravel-sized material resulting from the crushing, grinding, and dry separation of the ore material. For this remedial action, chat is often found in old asphalt, gravel driveways, under or around foundations, or as fill.

Composite soil sample: Soil testing method used where several aliquots of soil are physically mixed into a larger combined sample. In general, individual samples which are composited must be the same size or volume and the composite sample must be completely mixed. Composite sampling can be useful for estimating mean concentration of a substance for a given area and, if appropriate, compositing can result in substantial savings where the cost of analyzing individual samples is high.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The acts created a special tax that went into a trust fund, commonly known as the Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, the EPA can either: (1) pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or (2) take legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the cost of the cleanup.

Drip zone: A drip zone is an area around the painted exterior walls of a house or structure that receives the majority of the rain runoff from the house or structure. Drip zones may vary in size from structure to structure and can only be identified through actual field inspection. The drip zone is generally located within 6 to 30 inches from the exterior walls of the house or structure.

Grab sample: A single sample which is collected at one point in time and place.

National Contingency Plan (NCP): The federal regulation that guides the Superfund program.

National Priorities List (NPL): The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.

Quadrant sample: A composite surface soil sample collected from a portion (usually one quarter) of a residential property.

Record of Decision (ROD): The ROD is a public document that explains which cleanup alternatives will be used to clean up a Superfund site. The ROD for sites listed on the NPL is created from information generated during the Remedial Investigation/Feasibility Study (RI/FS). A ROD contains site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, scope and role of response action and the remedy selected for cleanup.

Remedial action: The actual construction or implementation phase of a Superfund site cleanup.

Remedial Investigation/Feasibility Study (RI/FS): Determines the nature and extent of contamination. Assesses the treatability of site contamination and evaluates the potential performance and cost of treatment technologies.

Residential property: Any area with high accessibility to sensitive populations, including properties containing single-and multi-family dwellings, apartment complexes, vacant lots in residential areas, schools, day-care centers, community centers, playgrounds, parks, green ways, and any other areas where children may be exposed to site-related contaminated media.

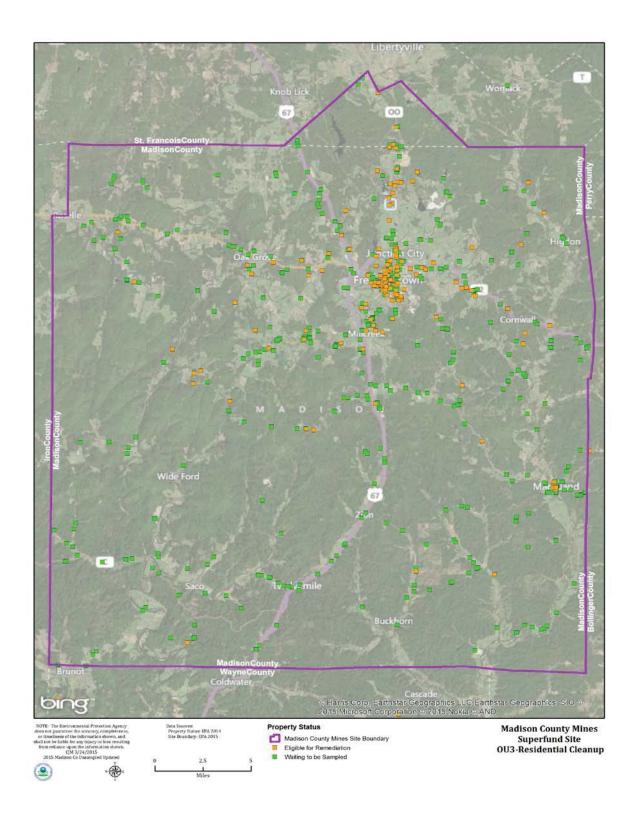
Sensitive populations: Young children (those under 7 years [84 months] of age who are most vulnerable to lead poisoning), nursing and pregnant women.

Tailings: Fine-grained, typically sand- and silt-sized, material resulting from the wet washing or floatation separation of the ore material.

Toxicity: The degree to which a chemical substance (or physical agent) elicits a deleterious or adverse effect upon the biological system of an organism exposed to the substance over a designated time period.

ENCLOSURE C

SITE LOCATION MAP



Performance Work Statement Madison County Mines OU3 and OU4 April 2015

ENCLOSURE C2

SITE LOCATION PLAT (CONRAD REPOSITORY)

Please Note: Site Plat included as an attachment to the Solicitation

ENCLOSURE D

MADISON COUNTY MINES SUPERFUND SITE PROPERTY PRE-EXCAVATION INSPECTION CHECKLIST

To be completed at the time of the Pre-Ex or information are also required to suppo			Valk. Photo documentation and any additional notes ntation in this checklist.
			DATE
ADDRESS			DAIL
PROPERTY ID NUMBER			
Property (Yard) Access (check one, so			by Property Owner
	OK	NA	PROBLEM/CONDITION
YARD AREA			
1. Lawn Area		<u> </u>	
A. Location of Flower/Plant Boxes			
B. Soil (grade) next to house			
C. Shrubbery			
D. Trees			
E. Low areas near house (that could cause ponding of water)			
F. Fences and gates			
G. Other (Dogs, livestock, etc.):			
2. Utilities			
A. Water			
B. Gas			
C. Electric			
D. Communications (phone/internet)			
E. Sewer			
F. Other:			

3. Driveway			
A. Concrete cracked, damaged			
3. Driveway (cont.)	OK	NA	PROBLEM/CONDITION
B. Blacktop cracked, damaged			
C. Uneven Settling			
D. Other:			
4. Sidewalks and Walkways			
A. Concrete cracked, eroded			
B. Tripping hazards			
C. Tree roots cracking, lifting slab		1.0	
D. Sections missing		1.0	
E. Other:		5 8	
5. Garage/outbuildings			
A. Settlement cracks in walls			
B. Concrete floor slab cracked or damaged			
C. Door jambs damaged, rotted			
D. Door hard to open, close			
E. Other:			
6. Swimming Pool (Above Ground)			
A. Leakage			
B. Visible Damage			
C. Other:		3 D	
7. Swimming Pool (Below Ground)			
A. Leakage			
B. Visible Damage			
C. Other:			
8. Storm Cellar			
A. Damaged			
B. Indication of Flooding			

C. Other:			
		1	
9. Electrical Service	OK	NA	PROBLEM/CONDITION
A. Damaged circuit breaker panel box			
B. Wiring hanging outside			
C. Damaged electric meter		i K	
D. Other:		3 .	
EXTERIOR HOUSE AREA			
10. Exterior Wall (circle)			
BRICK SIDING			
OTHER:			
A. Brick bulging, spalling, cracking			
B. Mortar loose, needs repointing			
C. Lintel needs repair			
D. Stucco bulging, cracking			
E. Siding dented, damaged			
F. Finish wearing off siding			
G. Siding loose, not level, missing			
H. Siding rotted, possible presence of termites or other pests.			
Composite shingles worn, broken, or missing			
J. Windows damaged			
K. Other:			
11. Gutters and Leaders			
A. Copper discolored, greenish, damaged			
B. Galvanized rusted, patched			
C. Fascia board rotted, damaged, patched			
D. Drain onto foundation wall			

E. Need to divert water from wall			
F. Soffit venting (circle): Yes			
No			
11. Gutters and Leaders (cont.)	OK	NA	PROBLEM/CONDITION
G. Concrete slab cracked, deteriorated			
H. Concrete slab/splash block needed			
I. Other:			
12. Entrance Steps			
A. Concrete cracked			
B. Brick cracked, mortar loose			
C. Structurally sound			
D. Handrail			
E. Other:			
13. Exterior Doors			
A. Damaged		i.	
B. Opens/closes freely		i c	1
C. Weatherstripping			
D. Trim rotted, missing			
E. Jambs rotted, damaged			
F. Frame separation from walls			
G. Other:			
ADDITIONAL COMMENTS:	19		
INSPECTOR SIGNATURE			DATE

Performance Work Statement Madison County Mines OU3 and OU4 April 2015 HOMEOWNER SIGNATURE

DATE

ENCLOSURE E

PRE-EXCAVATION AGREEMENT FORM (EXAMPLE)

Property ID:	
Property Address:	
Agreement Number:	Agreement Date/Time:
Issue/Concern:	
Agreed Solution Between Contractor and Owner:	
Agreed Soldton Between Contractor and Owner.	
Contractor's Information:	Property Owner Information:
Printed Name & Date:	
Signature:	
Phone Number:	

ENCLOSURE F

EXAMPLE FORMAT OF BI-MONTHLY REPORTS

TABLE OF CONTENTS

Section

- 1.0 INTRODUCTION
- 2.0 BI-MONTHLY OVERVIEW
- 3.0 SUMMARY OF BI-MONTHLY AND CUMULATIVE ACTIVITIES
- 4.0 SUMMARY OF ACTIVITY BY PROPERTY
- 5.0 ROADS USED BY TRUCKS GOING TO AND FROM THE SOIL REPOSITORY
- 6.0 NUMBER OF CONTRACTOR SITE PERSONNEL (NOTING LOCAL HIRES)
- 7.0 PROBLEM AREAS ENCOUNTERED AND CORRECTIVE ACTIONS TAKEN
- 8.0 MEDIA CONTACTS
- 9.0 CITIZEN COMPLAINTS AND RESPONSE/ACTIONS TAKEN
- 10.0 UNIQUE FINDINGS
- 11.0 OTHER RELEVANT INFORMATION
- 12.0 FUTURE WORK PLANNED / SUMMARY OF ON-GOING PROJECTS
- 13.0 DAILY REPORTS COMPILATION
- 14.0 ENCLOSURES

ENCLOSURE G

Daily Report Form (Example)

Ι	OAILY REPORT	DATE:		
CONTRACT	NUMBER	PROJECT/LOCATION		REPORT NUMBER
CONTRACT	OR (PRIME OR SUBCONTRA	ACTOR)	NAME OF SUPERINTE	ENDENT OR FOREMAN
WEATHER -	A.M.		TEMPERATURE – A.M.	
WEATHER -	P.M.		TEMPERATURE – P.M.	
	TRACTOR AND OR/SUBCO	NTRACT(OR WORKFORCE	
NUMBER	TRADE	HRS I	EMPLOYER	LOCATION/ACTIVITY
MATERIAL	ON-SITE		EQUIPMENT ON-SITE (T STATUS)	YPE, USAGE, REPAIR
SAFETY VIO	DLATIONS	(CORRECTIVE ACTIONS	
RESULTS O	F QC INPECTIONS	1		
ATTACHED	DOCUMENTS (cubic yard tot	als, comp	laint forms, etc.)	
REMARKS				
*The EPA requires the Contractor to submit a compilation of the daily reports as part of the bi-monthly report.				
THE LIATE	quites the Confidence to submit	а сотрпа	non of the dutty reports as p	our of the of monthly report.
CTR SUPER	INTENDENT:			EPA COR:

ENCLOSURE H

PROPERTY OWNER ISSUES FORM (EXAMPLE)

Date:	Property ID:	
		plaint Date/Time:
Property Owner Information:		
Printed Name:		
Signature:		
Phone Number:		
Issue/Concern (include date):		
Suggested Solution:		
Action Taken by Contractor:		
Contractor's Information:	Hom	neowner's Information:
Printed Name:	Prin	ted Name:
Signature:	Sign	ature:
Date:	Date:	

ENCLOSURE I

Final Property Closeout Form

Propert	y Address:						
Owner's Name: P		Property #	roperty #:				
Date/Ti	me: Areas Excavated:						
Contra	ctor/Rep. Name:						
Excav	ation, General Info	Yes	No	N/A			
1.	Were the correct area(s) excavated and restored?						
2.	Were the correct area(s) of drip zone excavated and restored?						
Gradi	ng, Hydroseeding and Vegetation						
1.	Does the grading around the perimeter of the house in excavated areas generally slope away from the house?						
2.	Has restoration included seed/sod, gravel, and/or landscaping completion in all areas that were excavated?						
3.	Does the grass appear to be germinating (for seed) and growing (for seed and sod)?						
4.	Are bare spots greater than 9 square inches visible in the grass areas	?					
5.	Are the restored areas generally firm and evenly graded?						
6.	Are the structures (house foundation, porch, sidewalks, etc.) free from hydroseeding overspray, mud and dirt?						
7.	Was the property graded such that water will not pool on the property?						
8.	Was damage to landscaping or plant materials avoided?						
Gates,	Fences and Retaining Walls						
1.	Do gates open and close freely?						
2.	Were all gates or fences removed during restoration reinstalled to their original state?						
3.	Was damage to the gates or fences avoided?						
4.	Was damage to retaining walls avoided?						
Found	ation, Siding, Gutters, Utilities, Outbuildings and Sheds						
1.	Was damage to the siding and trim avoided?						
2.	Was damage to the foundation avoided?						

32	Was damage to windows, doors, and screens avoided?			
4.	Was damage to gutters, downspouts, downspout extensions and			
5.	other drainage structures avoided? Was damage to utilities and air conditioning units avoided?	Fig.	_	
3.	was damage to diffices and all conditioning diffic avoided?			
6.	Was damage to outbuildings and sheds avoided?			
Sidewa	alks and Driveways (Concrete or Asphalt)			
1.	Was damage to driveway surfaces avoided?			
2.	Was damage to walkway surfaces avoided?			
Please a	attach pre- and post-excavation field sheets and photos			
Own	er's Comments:			
OWIN	A 5 Comments.			
·				102
-				100
				-
				100
<u>-</u>				
<u> </u>				
Inspe	ection Notes:			
Inspe	CHOIL NOVES.			
<u></u>				
3×				
1.5				
1				100
-				
As the o	owner of	, I ack	nowledge	that all
	owner ofion work was completed appropriately and satisfactorily, and no dam	-150	_	
restorati		-150	_	
restorati settleme	ion work was completed appropriately and satisfactorily, and no dament agreements with the contractor:	age remai	ins beyond	l any
restorati settleme	ion work was completed appropriately and satisfactorily, and no dame	age remai	ins beyond	l any
restorati settleme Propert All exca	ion work was completed appropriately and satisfactorily, and no dament agreements with the contractor:	age remai	ns beyond	l any
restorati settleme Propert All exca settleme	ton work was completed appropriately and satisfactorily, and no dament agreements with the contractor: ty Owner: Davation, transportation, disposal, backfilling, landscaping, restoration	age remai	and repair	l any rs and/or

ENCLOSURE J

PROPERTY OWNER SATISFACTION SURVEY (EXAMPLE FORM)

The purpose of this form is to reflect the Contractor's performance based on the Property Owner's point of view. The EPA regards customer satisfaction as a very important task and will use these forms as one of the tools to measure the performance of the Contractor.

Property ID:				
Excavation Start Date:				
Excavation Finish Date:				
Backfill Start Date:				
Backfill Finish (with final top				
Revegetation Start Date:				
Date of Property Closeout:				
Please answer YES or NO or				
1) The Contractor promoted a	good beha	vior on the job	site:	
2) The Contractor performed	the work	while being min	ndful of my personal	property:
3) The Contractor performed	the work	in a timely man	ner:	
Please write a short statemen	t summari	zing the Contra	ctor's performance:	
On the following scale, pleas	e rank the	Contractor's O	verall Performance (circle):
1 – poor 2 – accep	otable	3 – good	4 – very good	5 – exceptional
Signature of Property Owner:				Date:
Printed Name:				

ENCLOSURE K

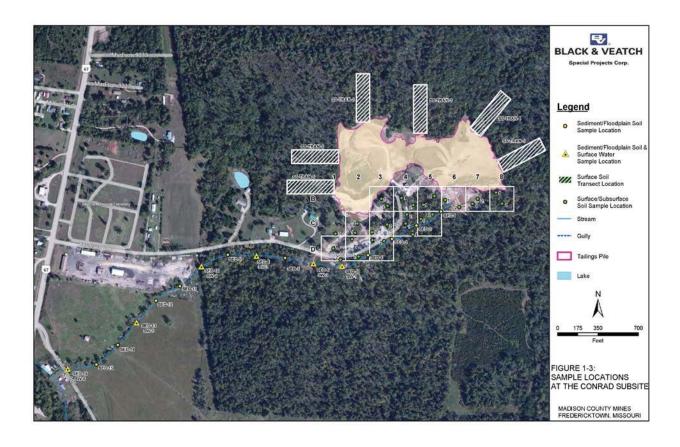
POST-EXCAVATION SETTLEMENT AGREEMENT FORM (EXAMPLE)

Property ID:	
Property Address:	
Settlement Number:	Settlement Date/Time:
Issue/Concern:	
10 dl dl dl dl	
Agreed Settlement Between Contractor and Owner:	
Contractor's Information:	Property Owner Information:
Printed Name & Date:	_
Signature:	
Phone Number:	

ENCLOSURE L

CONRAD TAILINGS / SOIL REPOSITORY

The designated soil repository is located at the Conrad Tailings pile located approximately 2.5 miles south of Fredericktown at the east end of Madison County Road 200 (Madison 200) off Business Hwy 67. The Contractor is responsible for consolidating the residential soil and source materials related to the areas designated in the figure below and the Remedial Design documents for OU4. The Contractor shall also be responsible for maintaining the entrance and exit from the repository, access road(s) and all material transported to the repository as described in the PWS.



ENCLOSURE M

